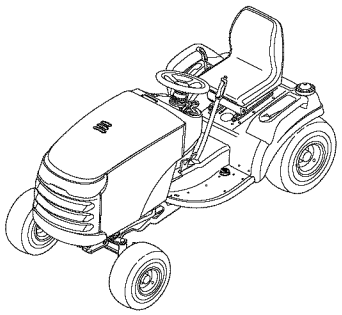
Simplicity | MASSEY FERGUSON LAWN & GARDEN EQUIPMENT | AGCO LAWN & GARDEN EQUIPMENT | SNAPPER

OPERATOR'S MANUAL

Prestige / 1800 / 2800 / 500 Series
Conquest / 1700 / 2700 / 400 Series



20HP Hydro Tractors

Mfg. No.	Description
1694625	Conquest, 20HP (CE)
1694679	YT2044, 20HP
1694752	2720H, 20HP
1694746	Conquest, 20HP
1694747	1720H, 20HP
2690265	Conquest, 20HP & 44" Mower (CE)
2690268	YT2044, 20HP & 44" Mower
2690270	2720H, 20HP & 44" Mower
2690262	Conquest, 20HP & 44" Mower
2690266	1720H, 20HP & 44" Mower
2690265	Conquest, 20HP & 44" Mower (CE)

21HP Hydro Tractors

Mfg. No.	Description
1694904	Conquest, 21HP
1694905	1721H, 21HP
1694906	2721H, 21HP
1694907	YT2144, 21HP
2690454	Conquest, 21HP & 44" Mower
2690455	1721H, 21HP & 44" Mower
2690456	2721H, 21HP & 44" Mower

22HP Hydro Tractors

Mfg. No.	Description
1694624	Conquest, 22HP
1694626	1722H, 22HP
1694627	YT2250, 22HP
1694628	2722H, 22HP
2690263	Conquest, 22HP & 50" Mower
2690433	Conquest, 22HP & 50" Mower
2690264	Conquest, 22HP & 54" Mower
2690267	1722H, 22HP & 50" Mower
2690269	YT2250, 22HP & 50" Mower
2690271	2722H, 22HP & 50" Mower
2690272	2722H, 22HP & 54" Mower

23HP Hydro Tractors

Mfg. No.	Description
1694617	Prestige, 23HP
1694618	Prestige, 23HP
1694619	Prestige, 23HP (CE)
1694620	1823H, 23HP
1694621	GT2354, 23HP
1694622	2823H, 23HP
1694623	2823H, 23HP
1694812	YT2344, 23HP (CE)
1694816	Conquest, 23HP (CE)
1694817	YT2350, 23HP
1694818	1723H, 23HP
1694819	Conquest, 23HP
1694820	2723H, 23HP
2690251	Prestige, 23HP & 50" Mower
2690252	Prestige, 23HP & 50" Mower
2690253	Prestige, 23HP & 54" Mower
2690254	Prestige, 23HP & 44" Mower
2690255	Prestige, 23HP & 44" Mower (CE)
2690256	2723H, 23HP & 50" Mower
2690257	2723H, 23HP & 54" Mower
2690258	GT2354, 23HP & 54" Mower
2690259	2823H, 23HP & 50" Mower
2690260	2823H, 23HP & 50" Mower
2690261	2823H, 23HP & 50" Mower
2690403	YT2344, 23HP & 44" Mower (CE)
2690410	Conquest, 23HP & 44" Mower (CE)
2690411	YT2350, 23HP & 50" Mower
2690412	1723H, 23HP & 50" Mower
2690414	Conquest, 23HP & 54" Mower
2690415	Conquest, 23HP & 50" Mower
2690416	1823H, 23HP & 50" Mower
2690417	1823H, 23HP & 54" Mower
2690422	Prestige, 23HP & 50" Mower (CE)
2690434	2823H, 23HP & 50" Mower
2690503	YT2300, 23HP
2690504	Conquest, 23HP & 44" Mower (CE)
2690505	YT2300, 23HP CE
2690600	Conquest, 23HP & 50" Mower
2690598	Conquest, 23HP & 44" Mower
2690603	1723H, 23HP & 50" Mower
2690605	1823H, 23HP & 50" Mower
2690702	Conquest, 23HP & 50" Mower
2690745	Conquest, 23HP & 50" Mower
2690746	Conquest, 23HP & 50" Mower
2690747	Conquest, 23HP & 44" Mower
2690748	Conquest, 23HP & 50" Mower
2690749	Conquest, 23HP & 50" Mower
2690750	Conquest, 23HP & 50" Mower
2690751	Conquest, 23HP & 50" Mower
2690752	Conquest, 23HP & 50" Mower

25HP Hydro Tractors

Mfg. No.	Description
2690563	Prestige, 25HP & 44" Mower
2690564	Prestige, 25HP & 50" Mower
2690566	1825H, 25HP & 50" Mower
2690568	2825H, 25HP & 50" Mower
2690630	GT500, 25HP & 54" Mower
2690699	Prestige, 25HP
2690700	Prestige, 25HP
2690736	Prestige, 25HP
2690738	Prestige, 25HP
2690740	Prestige, 25HP
2690742	Prestige, 25HP

27HP Hydro Tractors

Mfg. No.	Description
2690565	Prestige, 27HP & 54" Mower
2690567	1827H, 27HP & 54" Mower
2690569	2827H, 27HP & 54" Mower
2690703	Prestige, 27HP
2690717	Prestige, 27HP
2690737	Prestige, 27HP
2690739	Prestige, 27HP
2690741	Prestige, 27HP

44" Mower Decks

Mfg. No.	Description
1694038	44" Mower Deck
1694044	44" Mower Deck
1694173	44" Mower Deck (CE)
1694519	44" Mower Deck (CE)
1694685	44" Mower Deck
1695028	44" Mower Deck (CE)
1695033	44" Mower Deck (CE)

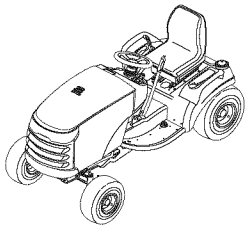
50" Mower Decks

Mfg. No.	Description
1694039	50" Mower Deck
1694045	50" Mower Deck
1694174	50" Mower Deck (CE)
1694372	50" Mower Deck
1694473	50" Mower Deck
1694474	50" Mower Deck
1694686	50" Mower Deck
1695183	50" Mower Deck
1695184	50" Mower Deck

54" Mower Decks

Mfg. No.	Description
1694366	54" Mower Deck
1694367	54" Mower Deck
1694491	54" Mower Deck
1694684	54" Mower Deck

1726898
Revision 15
Rev. Date 07/2007
TP 100-4086-15-PR-SMAN



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NOTE: In this manual, "left" and "right" are referred to as seen from the operating position.

Safety Rules & Information

Operating Safety

Congratulations on purchasing a superior-quality piece of lawn and garden equipment. Our products are designed and manufactured to meet or exceed all industry standards for safety.

Power equipment is only as safe as the operator. If it is misused, or not properly maintained, it can be dangerous! Remember, you are responsible for your safety and that of those around you.

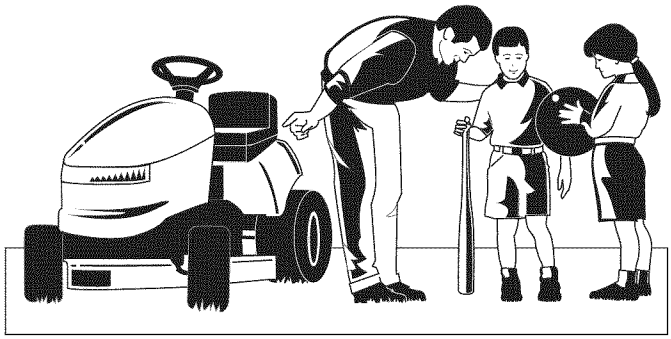
Use common sense, and think through what you are doing. If you are not sure that the task you are about to perform can be safely done with the equipment you have chosen, ask a professional: contact your local authorized dealer.

Read the Manual

The operator's manual contains important safety information you need to be aware of BEFORE you operate your unit as well as DURING operation.

Safe operating techniques, an explanation of the product's features and controls, and maintenance information is included to help you get the most out of your equipment investment.

Be sure to completely read the Safety Rules and Information found on the following pages. Also completely read the Operation section.



Children

Tragic accidents can occur with children. Do not allow them anywhere near the area of operation. Children are often attracted to the unit and mowing activity. Never assume that children will remain where you last saw them. If there is a risk that children may enter the area where you are mowing, have another responsible adult watch them.

DO NOT GIVE CHILDREN RIDES ON THIS UNIT! This encourages them to come near the unit in the future while it is running, and they could be seriously hurt. They may then approach the unit for a ride when you are not expecting it, and you may run over them.

Reverse

Do not mow in reverse unless absolutely necessary. Always look down and behind before and while traveling in reverse even with the mower blades disengaged.

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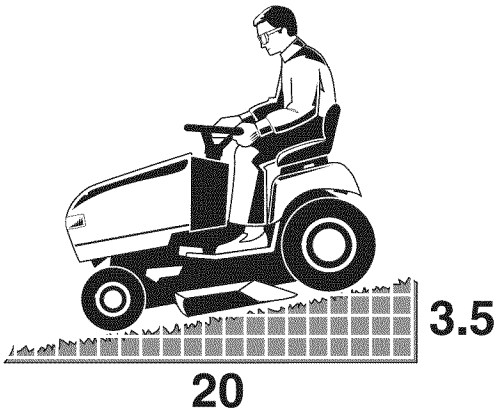


Slope Operation

You could be seriously injured or even killed if you use this unit on too steep an incline. Using the unit on a slope that is too steep or where you don't have adequate traction can cause you to lose control or roll over.

A good rule of thumb is to not operate on any slope you cannot back up (in 2-wheel drive mode). You should not operate on inclines with a slope greater than a 3.5 foot rise over a 20 foot length. Always drive up and down slopes: never cross the face.

Also note that the surface you are driving on can greatly impact stability and control. Wet grass or icy pavement can seriously affect your ability to control the unit.

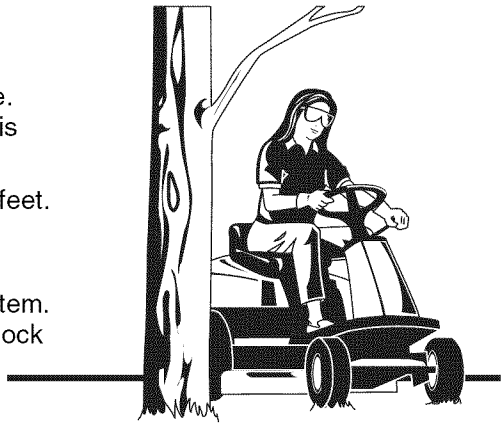
If you feel unsure about operating the unit on an incline, don't do it. It's not worth the risk.

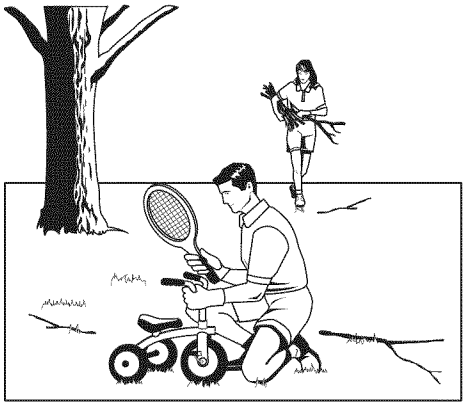
Moving Parts

This equipment has many moving parts that can injure you or someone else. However, if you are seated in the seat properly, and follow all the rules in this book, the unit is safe to operate.

The mower deck has spinning mower blades that can amputate hands and feet. Do not allow anyone near the equipment while it is running!

To help you, the operator, use this equipment safely, it is equipped with an operator-present safety system. Do NOT attempt to alter or bypass the system. See your dealer immediately if the system does not pass all the safety interlock system tests found in this manual.





Thrown Objects

This unit has spinning mower blades. These blades can pick up and throw debris that could seriously injure a bystander. Be sure to clean up the area to be mowed BEFORE you start mowing.

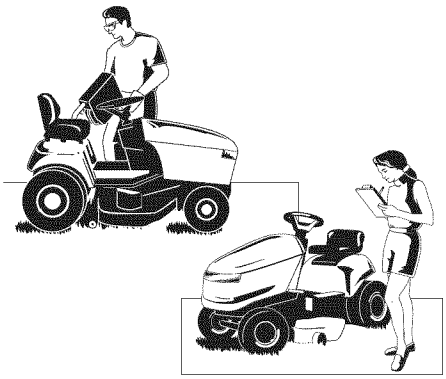
Do not operate this unit without the entire grass catcher or discharge guard (deflector) in place.

Also, do not allow anyone in the area while the unit is running! If someone does enter the area, shut the unit off immediately until they leave.

Fuel and Maintenance

Gasoline is extremely flammable. Its vapors are also extremely flammable and can travel to distant ignition sources. Gasoline must only be used as a fuel, not as a solvent or cleaner. It should never be stored any place where its vapors can build up or travel to an ignition source like a pilot light. Fuel belongs in an approved, plastic, sealed gas can, or in the tractor fuel tank with the cap securely closed. Spilled fuel needs to be cleaned up immediately.

Proper maintenance is critical to the safety and performance of your unit. Be sure to perform the maintenance procedures listed in this manual, especially periodically testing the safety system.



Safety Rules & Information

Read these safety rules and follow them closely. Failure to obey these rules could result in loss of control of unit, severe personal injury or death to you, or bystanders, or damage to property or equipment.
This mowing deck is capable of amputating hands and feet and throwing objects.
The triangle ⚠ in text signifies important cautions or warnings which must be followed.

GENERAL OPERATION

1. Read, understand, and follow all instructions in the manual and on the unit before starting.
2. Do not put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.
3. Only allow responsible adults, who are familiar with the instructions, to operate the unit (local regulations can restrict operator age).
4. Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade(s).
5. Be sure the area is clear of other people before mowing. Stop the unit if anyone enters the area.
6. Never carry passengers.
7. Do not mow in reverse unless absolutely necessary. Always look down and behind before and while travelling in reverse.
8. Never direct discharge material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blade(s) when crossing gravel surfaces.
9. Do not operate the machine without the entire grass catcher, discharge guard (deflector), or other safety devices in place.
10. Slow down before turning.
11. Never leave a running unit unattended. Always disengage the PTO, set parking brake, stop engine, and remove keys before dismounting.
12. Disengage blades (PTO) when not mowing. Shut off engine and wait for all parts to come to a complete stop before cleaning the machine, removing the grass catcher, or unclogging the discharge guard.
13. Operate the machine only in daylight or good artificial light.
14. Do not operate the unit while under the influence of alcohol or drugs.
15 Watch for traffic when operating near or crossing roadways.
16. Use extra care when loading or unloading the unit into a trailer or truck.
17. Always wear eye protection when operating this unit.
18. Data indicates that operators, age 60 years and above, are involved in a large percentage of power equipment-related injuries. These operators should evaluate their ability to operate the equipment safely enough to protect themselves and others from injury.
19. Follow the manufacturer's recommendations for wheel weights or counterweights.
20. Keep in mind the operator is responsible for accidents occurring to other people or property.
21. All drivers should seek and obtain professional and practical instruction.
22. Always wear substantial footwear and trousers. Never operate when barefoot or wearing sandals.
23. Before using, always visually check that the blades and blade hardware are present, intact, and secure. Replace worn or damaged parts.
24. Disengage attachments before: refueling, removing an attachment, making adjustments (unless the adjustment can be made from the operator's position).
25. When the machine is parked, stored, or left unattended, lower the cutting means unless a positive mechanical lock is used.
26. Before leaving the operator's position for any reason, engage the parking brake (if equipped), disengage the PTO, stop the engine, and remove the key.
27. To reduce fire hazard, keep the unit free of grass, leaves, & excess oil. Do not stop or park over dry leaves, grass, or combustible materials.
28. It is a violation of California Public Resource Code Section 4442 to use or operate the engine on or near any forest-covered, brush-covered, or grass-covered land unless the exhaust system is equipped with a spark arrester meeting any applicable local or state laws. Other states or federal areas may have similar laws.

TRANSPORTING AND STORAGE

1. When transporting the unit on an open trailer, make sure it is facing forward, in the direction of travel. If the unit is facing backwards, wind lift could damage the unit.
2. Always observe safe refueling and fuel handling practices when refueling the unit after transportation or storage.
3. Never store the unit (with fuel) in an enclosed poorly ventilated structure. Fuel vapors can travel to an ignition source (such as a furnace, water heater, etc.) and cause an explosion. Fuel vapor is also toxic to humans and animals.
4. Always follow the engine manual instructions for storage preparations before storing the unit for both short and long term periods.
5. Always follow the engine manual instructions for proper start-up procedures when returning the unit to service.
6. Never store the unit or fuel container inside where there is an open flame or pilot light, such as in a water heater. Allow unit to cool before storing.

SLOPE OPERATION

Slopes are a major factor related to loss-of-control and tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution. If you cannot back up the slope or if you feel uneasy on it, do not operate on it.

Control of a walk-behind or ride-on machine sliding on a slope will not be regained by the application of the brake. The main reasons for loss of control are: insufficient tire grip on the ground, speed too fast, inadequate braking, the type of machine is unsuitable for its task, lack of awareness of the ground conditions, incorrect hitching and load distribution.

1. Mow up and down slopes, not across.
2. Watch for holes, ruts, or bumps. Uneven terrain could overturn the unit. Tall grass can hide obstacles.
3. Choose a slow speed so that you will not have to stop or change speeds while on the slope.
4. Do not mow on wet grass. Tires may loose traction.
5. Always keep unit in gear especially when traveling down slopes. Do not shift to neutral and coast downhill.
6. Avoid starting, stopping, or turning on a slope. If tires lose traction, disengage the blade(s) and proceed slowly straight down the slope.
7. Keep all movement on slopes slow and gradual. Do not make sudden changes in speed or direction, which could cause the machine to rollover.
8. Use extra care while operating machines with grass catchers or other attachments; they can affect the stability of the unit. Do not use on steeps slopes.
9. Do not try to stabilize the machine by putting your foot on the ground (ride-on units).
10. Do not mow near drop-offs, ditches, or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.
11. Do not use grass catchers on steep slopes.
12. Do not mow slopes you cannot back up them.
13. See your authorized dealer/retailer for recommendations of wheel weights or counterweights to improve stability.
14. Remove obstacles such as rocks, tree limbs, etc.
15. Use slow speed. Tires may lose traction on slopes even through the brakes are functioning properly.
16. Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.

TOWED EQUIPMENT (RIDE-ON UNITS)

1. Tow only with a machine that has a hitch designed for towing. Do not attach towed equipment except at the hitch point.
2. Follow the manufacturer's recommendations for weight limit for towed equipment and towing on slopes.
3. Never allow children or others in or on towed equipment.
4. On slopes, the weight of the towed equipment may cause loss of traction and loss of control.
5. Travel slowly and allow extra distance to stop.
6. Do not shift to neutral and coast down hill.

⚠ WARNING

Never operate on slopes greater than 17.6 percent (10°) which is a rise of 3-1/2 feet (106 cm) vertically in 20 feet (607 cm) horizontally.

When operating on slopes use additional wheel weights or counterweights. See your dealer/retailer to determine which weights are available and appropriate for your unit.

Select slow ground speed before driving onto slope. In addition to front weights, use extra caution when operating on slopes with rear-mounted grass catchers.

Mow UP and DOWN the slope, never across the face, use caution when changing directions and DO NOT START OR STOP ON SLOPE.

CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the unit and the mowing activity. Never assume that children will remain where you last saw them.

1. Keep children out of the mowing area and under the watchful care of another responsible adult.
2. Be alert and turn unit off if children enter the area.
3. Before and during reverse operation, look behind and down for small children.
4. Never carry children, even with the blade(s) off. They may fall off and be seriously injured or interfere with safe unit operation. Children who have been given rides in the past may suddenly appear in the mowing area for another ride and be run over or backed over by the machine.
5. Never allow children to operate the unit.
6. Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

EMISSIONS

1. Engine exhaust from this product contains chemicals known, in certain quantities, to cause cancer, birth defects, or other reproductive harm.
2. Look for the relevant Emissions Durability Period and Air Index information on the engine emissions label.

IGNITION SYSTEM

1. This spark ignition system complies with Canadian ICES-002.

SERVICE AND MAINTENANCE

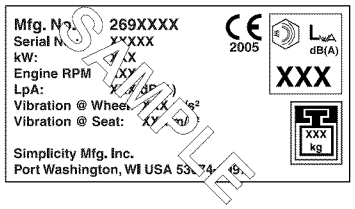
Safe Handling of Gasoline

1. Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
2. Use only approved gasoline containers.
3. Never remove the gas cap or add fuel with the engine running. Allow the engine to cool before refueling.
4. Never fuel the machine indoors.
5. Never store the machine or fuel container where there is an open flame, spark, or pilot light such as near a water heater or other appliance.
6. Never fill containers inside a vehicle or on a truck bed with a plastic bed liner. Always place containers on the ground away from your vehicle before filling.
7. Remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
8. Keep nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. Do not use a nozzle lock-open device.
9. If fuel is spilled on clothing, change clothing immediately.
10. Never over-fill the fuel tank. Replace gas cap and tighten securely.
11. Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
12. If fuel is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until fuel vapors have dissipated.
13. Replace all fuel tank caps and fuel container caps securely.

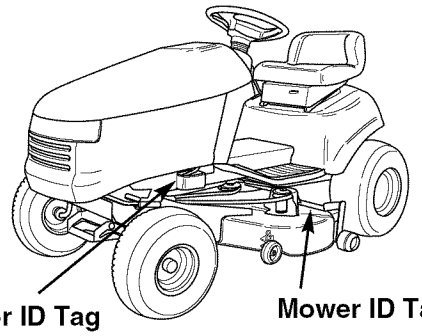
Service & Maintenance

1. Never run the unit in an enclosed area where carbon monoxide fumes may collect.
2. Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
3. Never tamper with safety devices. Check their proper operation regularly and make necessary repairs if they are not functioning properly.
4. Keep unit free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage. and remove any fuel-soaked debris. Allow machine to cool before storage.
5. If you strike an object, stop and inspect the machine. Repair, if necessary, before restarting.
6. Never make adjustments or repairs with the engine running.
7. Check grass catcher components and the discharge guard frequently and replace with manufacturer's recommended parts, when necessary.
8. Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.
9. Check brake operation frequently. Adjust and service as required.
10. Maintain or replace safety and instructions labels, as necessary.
11. Do not remove the fuel filter when the engine is hot as spilled gasoline may ignite. Do not spread fuel line clamps further than necessary. Ensure clamps grip hoses firmly over the filter after installation.
12. Do not use gasoline containing METHANOL, gasohol containing more than 10% ETHANOL, gasoline additives, or white gas because engine/fuel system damage could result.
13. If the fuel tank must be drained, it should be drained outdoors.
14. Replace faulty silencers/mufflers.
15. Maintain or replace safety and instruction labels as necessary.
16. Use only factory authorized replacement parts when making repairs.
17. Always comply with factory specifications on all settings and adjustments.
18. Only authorized service locations should be utilized for major service and repair requirements.
19. Never attempt to make major repairs on this unit unless you have been properly trained. Improper service procedures can result in hazardous operation, equipment damage and voiding of manufacturer's warranty.
20. On multiple blade mowers, take care as rotating one blade can cause other blades to rotate.
21. Do not change engine governor settings or overspeed the engine. Operating the engine at excessive speed can increase the hazard of personal injury.
22. Disengage drive attachments, stop the engine, remove the key, and disconnect the spark plug wire(s) before: clearing attachment blockages and chutes, performing service work, striking an object, or if the unit vibrates abnormally. After striking an object, inspect the machine for damage and make repairs before restarting and operating the equipment.
23. Never place hands near the moving parts, such as a hydro pump cooling fan, when the tractor is running. (Hydro pump cooling fans are typically located on top of the transaxle).
24. Units with hydraulic pumps, hoses, or motors: WARNING: Hydraulic fluid escaping under pressure may have sufficient force to penetrate skin and cause serious injury. If foreign fluid is injected into the skin it must be surgically removed within a few hours by a doctor familiar with this form of injury or gangrene may result. Keep body and hands away from pin holes or nozzles that eject hydraulic fluid under high pressure. Use paper or cardboard, and not hands, to search for leaks. Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system. If leaks occur, have the unit serviced immediately by your authorized dealer.
25. WARNING: Stored energy device. Improper release of springs can result in serious personal injury. Springs should be removed by an authorized technician.
26. Models equipped with an engine radiator: WARNING: Stored energy device. To prevent serious bodily injury from hot coolant or steam blow-out, never attempt to remove the radiator cap while the engine is running. Stop the engine and wait until it is cool. Even then, use extreme care when removing the cap.

North American / CE Models



CE Models (Only)



When contacting your authorized dealer for replacement parts, service, or information you MUST have these numbers.

Record your model name/number, manufacturer's identification numbers, and engine serial numbers in the space provided for easy access. These numbers can be found in the locations shown.

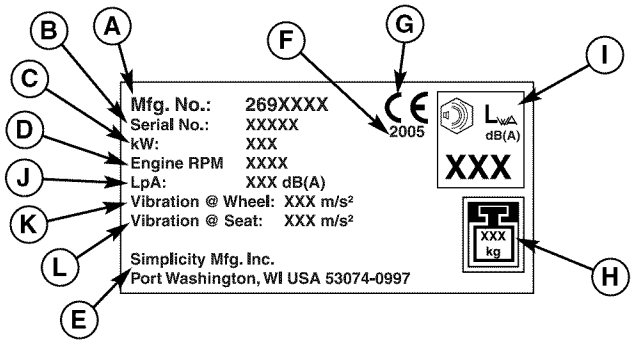
NOTE: For location of engine identification numbers, refer to the engine owner's manual.

CE Models: Place the extra copy of the identification tag in the manual

PRODUCT REFERENCE DATA	
Model Description Name/Number	
Unit MFG Number	Unit SERIAL Number
Mower Deck MFG Number	Mower Deck SERIAL Number
Dealer Name	Date Purchased
ENGINE REFERENCE DATA	
Engine Make	Engine Model
Engine Type/Spec	Engine Code/Serial Number

CE Identification Tag Markings

A. Manufacturer's Identification Number
B. Manufacturer's Serial Number
C. Power Rating in Kilowatts
D. Maximum Engine Speed in Rotations per Minute
E. Manufacturer's Address
F. Year of Manufacture
G. CE Compliance Logo
H. Mass of Unit in Kilograms
I. Sound Power in Decibels ***
J. Sound Pressure at Operator's Position in Decibels **
K. Vibration at the Steering Wheel *
L. Vibration at the Seat *



This unit complies with European Harmonized Lawn Mower Standard EN 836, European Machinery Directive 98/37/EC, and European EMC Directive 89/336/EC

* Tested according to EN 836:1997/A2:2001, EN 1032: 1996, EN 1033:1995

** Tested according to EN836:1997/A2:2001

*** Tested according to 2000/14/EC

CE Models: Place copy of Identification Tag here.

Safety Decals

This unit has been designed and manufactured to provide you with the safety and reliability you would expect from an industry leader in outdoor power equipment manufacturing.

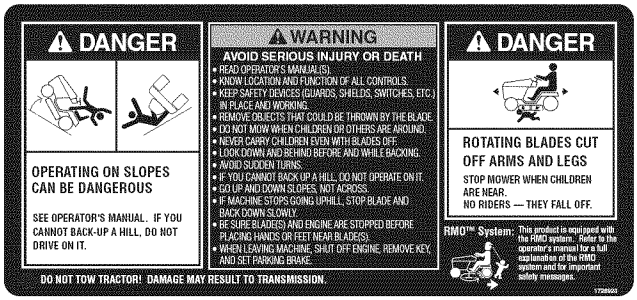
Although reading this manual and the safety instructions it contains will provide you with the necessary basic knowledge to operate this equipment safely and effectively, we have placed several safety labels on the unit to remind you of this important information while you are operating your unit.

All DANGER, WARNING, CAUTION and instructional messages on your rider and mower should be carefully read and obeyed. Personal bodily injury can result when these instructions are not followed. The information is for your safety and it is important! The safety decals below are on your rider and mower.

If any of these decals are lost or damaged, replace them at once. See your local dealer for replacements.

These labels are easily applied and will act as a constant visual reminder to you, and others who may use the equipment, to follow the safety instructions necessary for safe, effective operation.

North American Models


DANGER
OPERATING ON SLOPES CAN BE DANGEROUS
SEE OPERATOR'S MANUAL. IF YOU CANNOT BACK-UP A HILL, DO NOT DRIVE ON IT.
WARNING
AVOID SERIOUS INJURY OR DEATH
• READ OPERATOR'S MANUAL(S).
• KNOW LOCATION AND FUNCTION OF ALL CONTROLS.
• KEEP SAFETY DEVICES (GUARDS, SHIELDS, SWITCHES, ETC.) IN PLACE AND WORKING.
• REMOVE OBJECTS THAT COULD BE THROWN BY THE BLADE.
• DO NOT MOW WHEN CHILDREN OR OTHERS ARE AROUND.
• NEVER CARRY CHILDREN EVEN WITH BLADES OFF.
• LOOK DOWN AND BEHIND BEFORE AND WHILE BACKING.
• AVOID SUDDEN TURNS.
• IF YOU CANNOT BACK UP A HILL, DO NOT OPERATE ON IT.
• GO UP AND DOWN SLOPES, NOT ACROSS.
• IF MACHINE STOPS GOING UPHILL, STOP BLADE AND BACK DOWN SLOWLY.
• BE SURE BLADE(S) AND ENGINE ARE STOPPED BEFORE PLACING HANDS OR FEET NEAR BLADE(S).
• WHEN LEAVING MACHINE, SHUT OFF ENGINE, REMOVE KEY, AND SET PARKING BRAKE.
DANGER
ROTATING BLADES CUT OFF ARMS AND LEGS
STOP MOWER WHEN CHILDREN ARE NEAR.
NO RIDERS — THEY FALL OFF.
RMO™ System: This product is equipped with the RMO system. Refer to the operator's manual for a full explanation of the RMO system and for important safety messages.
DO NOT TOW TRACTOR! DAMAGE MAY RESULT TO TRANSMISSION.

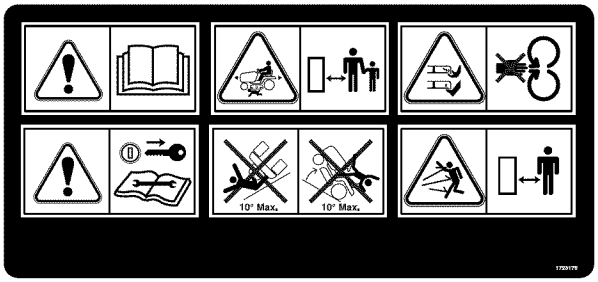
Decal - Operating Instructions, North American Models, Part No. 1726923

Decal - Danger, Side-Discharge Models Part No. 1704276

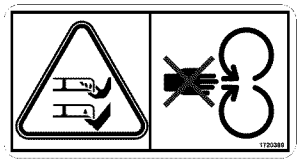
DANGER
Amputation and Thrown Objects Hazard
To avoid injury from rotating blades and thrown debris, stay clear of deck edge and discharge. Do not mow without deflector or entire grass catcher in place.

Decal - Danger, Side Discharge Models Part No. 1704277

CE Models

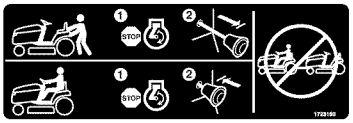


Decal - Operating Instructions, CE Models, Part No. 1723175



Decal - Danger, Rotating Blades Part No. 1720389

All Models



Decal - Transmission Release Part No. 1723160

Decal - Ignition Switch Positions Part No. 1722806

Decal - Cutting Height Part No. 1723470

Decal - Cutting Height Part No. 1723847

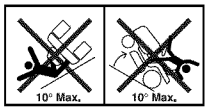
Safety Icons

Warning: Read Operator's Manual.

Read and understand the Operator's Manual before using this machine.

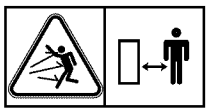
Danger: Machine Rollover.

Do not use this machine on slopes greater than 10°.



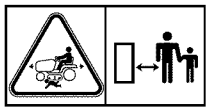
Danger: Thrown Objects.

This machine is capable of throwing objects and debris. Keep bystanders away.



Danger: Dismemberment.

This machine can amputate limbs. Keep bystanders and children away when engine is running.

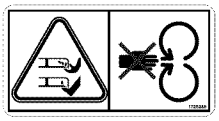


Warning: Remove Key Before Servicing.

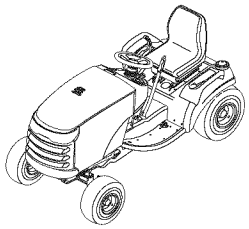
Remove the key and consult technical literature before performing repairs or maintenance.

Danger: Dismemberment.

This mower deck can amputate limbs. Keep hands and feet away from blades.



Features & Controls



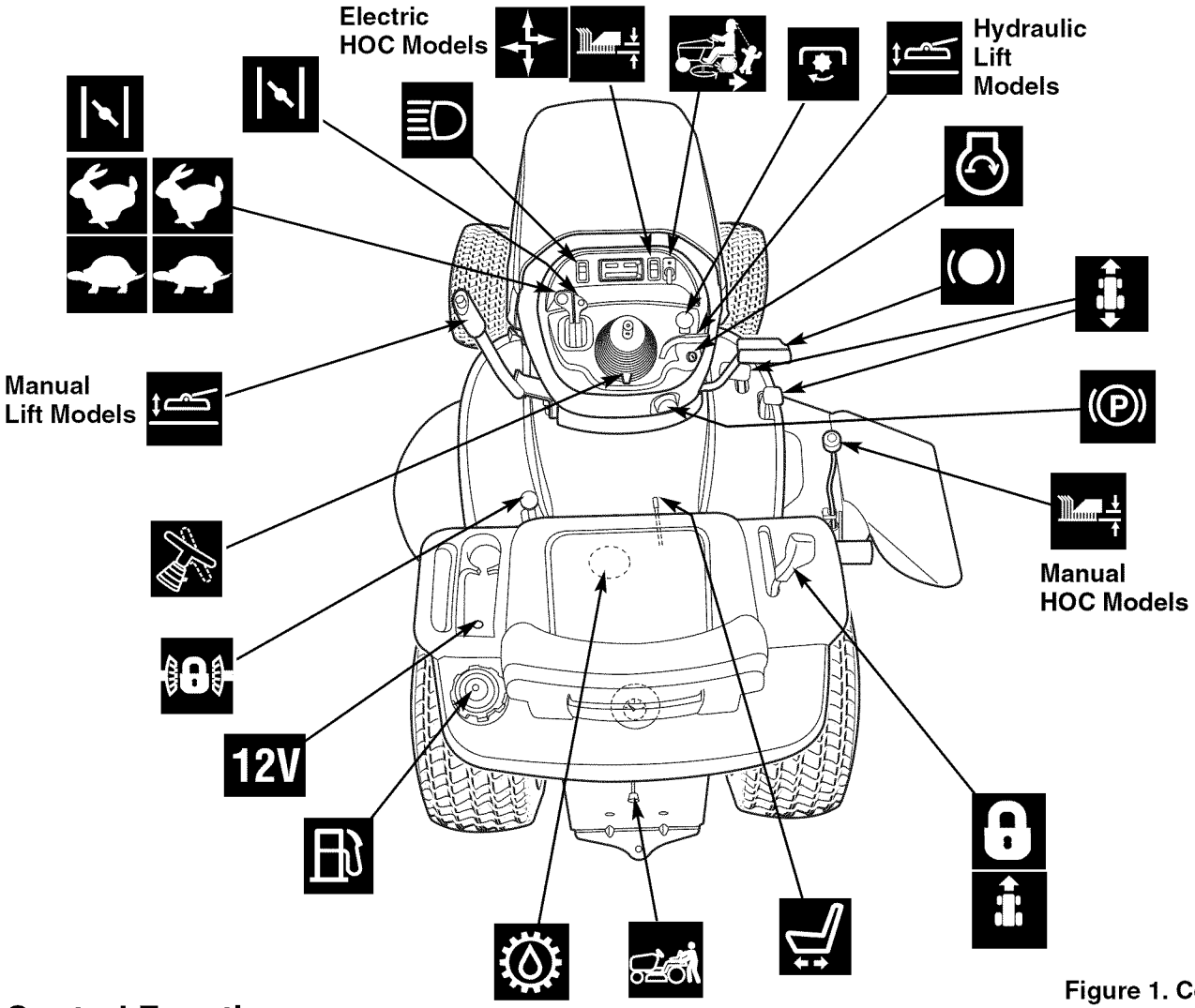


Figure 1. Controls

Control Functions

The information below briefly describes the function of individual controls. Starting, stopping, driving, and mowing require the combined use of several controls applied in specific sequences. To learn what combination and sequence of controls to use for various tasks see the OPERATION section.

Throttle Control

The throttle controls engine speed. Move the throttle forward to increase engine speed and back to decrease engine speed. Always operate at FULL throttle.

Choke

Close the choke for cold starting. Open the choke once the engine starts. A warm engine may not require choking. Move the lever forward to close the choke.

Headlights

The light switch turns the tractor headlights on and off.

Reverse Mowing Option (RMO)

The Reverse Mowing Option allows for mowing (or use of other PTO driven attachments) while traveling in reverse. If you choose to mow or operate another attachment in reverse, turn the RMO key after the PTO is engaged. The L.E.D. light will illuminate, and the operator can then mow in reverse. Each time the PTO is disengaged the RMO needs to be reactivated if desired.

PTO Switch

The PTO (Power Take-Off) switch engages and disengages attachments that use the PTO. To engage the PTO, pull UP on the switch. Push DOWN to disengage. *Note that the operator must be seated firmly in the tractor seat for the PTO to function.*

Ignition Switch

The ignition switch starts and stops the engine, it has three positions:

OFF	Stops the engine and shuts off the electrical system.
RUN	Allows the engine to run and powers the electrical system.
START	Cranks the engine for starting.

NOTE: Never leave the ignition switch in the RUN position with the engine stopped–this drains the battery.

Brake Pedal

Depressing the brake pedal applies the tractor brake.

Ground Speed Pedals

The tractor's forward ground speed is controlled by the forward ground speed control pedal. The tractor's reverse ground speed is controlled by the reverse ground speed control pedal.

Depressing either pedal will increase ground speed. Note that the further down the pedal is depressed, the faster the tractor will travel.

Parking Brake

The parking brake knob is used to lock the parking brake when the tractor is stopped. Fully depressing the brake pedal and pulling up on the knob engages the parking brake. Refer to page 10 for a full explanation of parking brake functions.

Mower Height of Cut Adjustment

The cutting height is infinitely adjustable between 1" and 3-5/8."

Electric Height of Cut Models: The cutting height adjustment switch controls the mower cutting height. This same switch also controls the spout rotator motor when a snowthrower is installed. The arrows on the switch correspond to the direction of adjustment (UP arrow raises cutting height, RIGHT arrow rotates the spout right, etc). When the adjustment indicator has reached the end of its travel, release the switch; holding the switch down will damage the motor.

Manual Lift Models: The cutting height adjustment knob controls the mower cutting height.

Cruise Control (Select Models)

The cruise control is used to lock the ground speed control in forward. Move the lever forward until the desired ground speed is reached. To disengage the cruise control move the lever back. In the event you need to stop quickly, depressing the brake pedal will also return the cruise control to neutral.

Seat Adjustment Lever

The seat can be adjusted forward and back. Move the lever, position the seat as desired, and release the lever to lock the seat into position.

Transmission Release Valve Lever

The transmission release valve lever deactivates the transmission so that the tractor can be pushed by hand. See PUSHING THE TRACTOR BY HAND for operational information.

Transmission Oil Expansion Chamber (K71 Models Only)

Transmission oil is added through the transmission oil expansion chamber. It also serves as extra holding capacity for oil as the transmission heats up and the oil expands. See TRANSMISSION MAINTENANCE for oil level check and fill procedures.

Fuel Tank

To remove the cap, turn counterclockwise. On models with a dashboard display, the fuel gauge is part of the dashboard. Models without a dashboard display have a fuel gauge located under the seat.

12V Power Outlet (Select Models)

The power outlet is 12V-DC. Accessory must be rated at 14 amps or less.

Differential Lock Pedal (Select Models)

Depressing this pedal locks the transmission differential, locking both rear wheels into "drive".

Use this feature if the tractor is stuck because one wheel is slipping. **Engage the differential lock at slow ground speeds only.**

Steering Tilt Adjust (Select Models)

Use the tilt knob located on the bellows to release the pivot mechanism and pivot the wheel to the desired position. Release the tilt knob to lock in position.

Attachment Lift Control Lever

When using the mower deck, lift the deck off the ground while transporting to and from the job site. **DO NOT** cut with the mower in the raised, transport position.

Hydraulic Lift Models: The attachment lift control lever raises and lowers attachments that utilize the tractor's hydraulic lift cylinder. Pushing the lever forward lowers the attachment while pulling the lever back raises the attachment.

IMPORTANT NOTE - On models equipped with hydraulic lift, *the attachment lift will not work when the parking brake is engaged.*

Manual Lift Models: The attachment lift control lever raises and lowers attachments that utilize the tractor's manual lift linkage. To lower an attachment: pull the lever back slightly, depress the release button, and push the lever forward until it locks in the lowered position. To raise an attachment: push the lever forward slightly, depress the release button, then pull the lever back until it locks in the raised position.

Parking Brake Function

Applying the Parking Brake - See Figure 2. To lock the parking brake, release the ground speed pedals (A), fully depress the brake pedal (B), pull UP on the parking brake knob (C), and then release brake pedal.

Releasing the Parking Brake - See Figure 2. To release the parking brake, fully depress the brake pedal (B) and push the parking brake knob (C) DOWN.

IMPORTANT NOTE: The tractor's hydraulic attachment lift will not work when the parking brake is engaged.

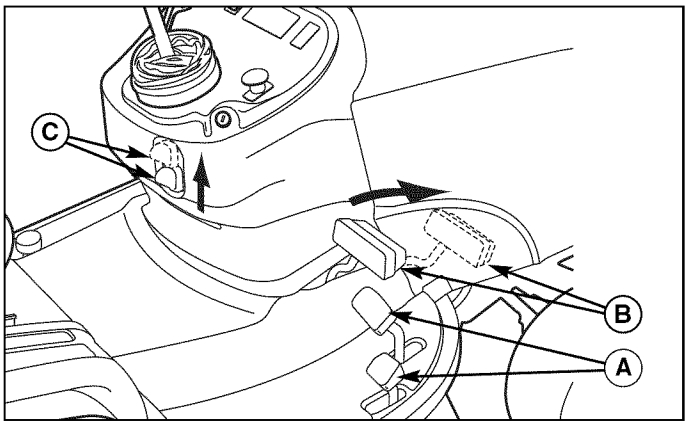


Figure 2. Engaging the Parking Brake
A. Ground Speed Pedals
B. Brake Pedal
C. Parking Brake Knob

Automatic Controlled Traction

What is Automatic Controlled Traction?

Automatic Controlled Traction (ACT) is an exclusive feature of our transmissions that provides improved traction. ACT applies a preset amount of torque to both rear wheels even if one starts slipping (a transmission without ACT will lose traction completely if one rear wheel starts slipping). This preset torque is just enough to provide additional traction, and still allow the wheels to turn at different speeds in a tight turn without damaging the lawn.

What to Expect from Your ACT Tractor

For the most part, while using your tractor you will not notice ACT working, and you will simply become accustomed to increased traction an ACT transmission provides.

Under certain circumstances the ACT system limit can be exceeded, and one of the rear wheels may slip (for instance if trying to turn up a hill while accelerating). This is normal. If you start to lose traction, do not speed up. Instead, slow to a stop, straighten the steering wheel, and slowly accelerate. Stopping the tractor allows the transmission to regain more traction.

Dashboard Display & Functions

Display Items

Refer to Figures 3.

A. FUEL LEVEL

Indicates the amount of fuel in the fuel tank. Left is empty; right is full.

B. HOUR METER / CLOCK / SERVICE INDICATOR

Displays the clock, hour meter, and maintenance reminder.

C. SELECT BUTTON

Used to set the clock and reset the maintenance reminder.

D. SET BUTTON

Used to set the clock and reset the maintenance reminder.

E. PTO LIGHT

Indicates the PTO switch is in the ON position.

F. CRUISE CONTROL LIGHT

Indicates that the cruise control is engaged.

G. LOW OIL PRESSURE LIGHT

Indicates that the engine oil pressure is low. The light will turn on when the tractor is first started and then go out. IF THIS LIGHT TURNS ON WHILE THE TRACTOR IS IN USE, TURN THE ENGINE OFF IMMEDIATELY. Contact your authorized dealer for service.

H. LOW VOLTAGE LIGHT

Indicates that the electrical system voltage is low. The light will turn on when the tractor is first started and then go out. IF THIS LIGHT TURNS ON WHILE THE TRACTOR IS IN USE, TURN THE ENGINE OFF IMMEDIATELY. Contact your authorized dealer for service.

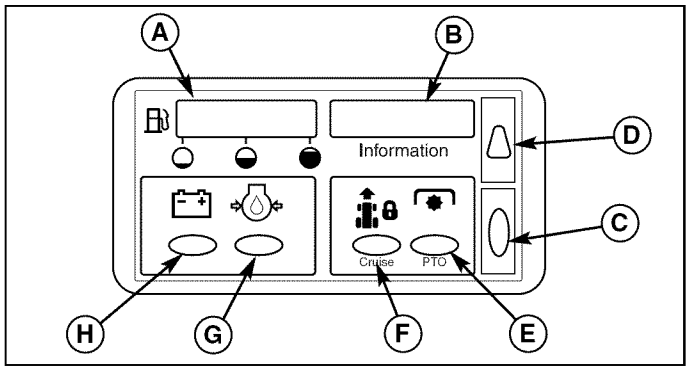


Figure 3. Dashboard Display - Select Models

Functions

DASHBOARD DISPLAY MODELS (SEE FIGURE 3)

Display Total Running Hours - When the key switch is first turned to the RUN position, all warning indicators will light and the total running hours will be displayed. Be sure all lights are functioning.

Display PTO Hours - Turn the key OFF, engage the PTO, and turn the key to RUN (engine off).

Set the Clock - Start the engine, leave the engine running. Depress the select button (C) for three (3) seconds and release. Depress set button and HOLD to advance time. Depress select button to select minutes. Depress and HOLD set button (D) to advance time. Leave alone for 5 seconds and clock will activate. Shut off engine.

Demonstration Mode - With the engine off, hold down the set button (D) and turn the key switch to RUN.

Maintenance Reminder - A maintenance reminder will display in the information window (B) after the first 5 hours of operation, and then after every 50 hours. The reminder will automatically reset after 5 hours. The reminder can be manually reset by turning the key switch from OFF to RUN (with engine off) and then depressing the set (D) and select (C) buttons simultaneously for 5 seconds.

12 Volt Power Outlet

(Select Models)

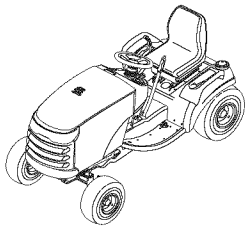
⚠ CAUTION

Avoid Injury. Safe operation requires your full attention. Do not wear radio or music headphones while operating machine.

The 12-volt accessory plug is located in the left side pod (D, Figure 1). It can be used to power small electronic devices. The accessory must be rated at 9 amps or less.

Note: Operating a 12-volt accessory, especially with the engine at idle, may cause battery discharge. When not using the accessory plug it must be covered with the rubber plug to prevent moisture from causing a short circuit. Entrance of water into plug can cause a short circuit.

Operating the Tractor



Safety Interlock System Tests

This unit is equipped with safety interlock switches and other safety devices. These safety systems are present for your safety: do not attempt to bypass safety switches, and never tamper with safety devices. Check their operation regularly.

Operational SAFETY Checks

Your unit is equipped with a seat switch safety system. Check the seat switch operation every fall and spring with the following tests.

Test 1 — Engine should NOT crank if:

- PTO switch is ON, OR
- Brake pedal is NOT fully depressed (parking brake OFF), OR
- The cruise control lever is NOT in NEUTRAL.

Test 2 — Engine SHOULD crank if:

- PTO switch is OFF, AND
- Brake pedal is fully depressed (parking brake ON), AND
- The cruise control lever is in NEUTRAL.

Test 3 — Engine should SHUT OFF if:

- Operator rises off seat with PTO engaged, OR
- Operator rises off seat with brake pedal NOT fully depressed (parking brake OFF).

Test 4 — Blade Brake Check

Mower blades and mower drive belt should come to a complete stop within five seconds after electric PTO switch is turned OFF (or operator rises off seat). If mower drive belt does not stop within five seconds, readjust the PTO clutch as described in the ADJUSTMENTS section or see your dealer.

Test 5 — Reverse Mow Option (RMO) Check

- Engine should shut off if reverse travel is attempted if the PTO has been switched on and RMO has not been activated.
- RMO light should illuminate when RMO has been activated.

NOTE: Once the engine has stopped, the PTO switch must be turned off after the operator returns to the seat in order to start the engine.

WARNING

If the unit does not pass a safety test, do not operate it. See your authorized dealer. Under no circumstance should you attempt to defeat the purpose of the safety interlock system.

General Operating Safety

Be sure to read all information in the Safety and Operation sections before attempting to operate this unit. Become familiar with all of the controls and how to stop the unit.

Adding Fuel

WARNING

Gasoline is highly flammable and must be handled with care. Never fill the tank when the engine is still hot from recent operation. Do not allow open flame, smoking or matches in the area. Avoid over-filling and wipe up any spills.

To add fuel:

1. Remove the fuel cap (A, Figure 4).
2. Fill the tank. Do not overfill. Leave room in the tank for fuel expansion. Refer to your engine manual for specific fuel recommendations.
3. Install and hand tighten the fuel cap.

Do not use gasoline containing METHANOL, gasohol containing more than 10% ETHANOL, gasoline additives, or white gas because engine/fuel system damage could result.

Starting the Engine

1. While sitting in the operator's seat, fully depress the brake pedal or set the parking brake.
2. Make sure that your feet are not depressing the ground speed control pedals and that the cruise control lever is in neutral.
3. Disengage the PTO clutch.
4. Set the throttle to FULL.
5. Close the choke.

NOTE: A warm engine may not require choking.

6. Insert the ignition key and turn it to START.
7. After the engine starts, move the engine throttle control to SLOW. Warm up the engine by running it for at least a minute.
8. Set throttle to FULL.

NOTE: In the event of an emergency the engine can be stopped by simply turning the ignition switch to STOP. Use this method only in emergency situations. For normal engine shut down follow the procedure given in STOPPING THE TRACTOR AND ENGINE.

Stopping the Tractor & Engine

1. Return the ground speed control(s) to neutral.
2. Disengage the PTO and wait for all moving parts to stop.

Kohler Models

3. Set the throttle to Full.

Briggs & Stratton Models

3. Set the throttle to Slow. Allow to run 30-60 seconds.

All Models

4. Turn the ignition switch to OFF. Remove the key.

Driving The Tractor

1. Sit in the seat and adjust the seat so that you can comfortably reach all the controls and see the dashboard display.
2. Engage the parking brake.
3. Make sure the PTO switch is disengaged.
4. Start the engine (see STARTING THE ENGINE).
5. Disengage the parking brake and release the brake pedal.
6. Depress the forward ground speed control pedal to travel forward. Release the pedal to stop. Note that the further down the pedal is depressed the faster the tractor will travel.
7. Stop the tractor by releasing the ground speed control pedals, setting the parking brake, and stopping the engine (see STOPPING THE TRACTOR AND ENGINE).

Mowing

1. Set the mower cutting height to the desired level and set the gauge wheels to the appropriate position (if equipped).
2. Engage the parking brake. Make sure the PTO switch is disengaged.
3. Start the engine (see STARTING THE ENGINE).
4. Fully lower the mower using the attachment lift lever.
5. Set the throttle to FULL.
6. Engage the PTO (Mower Deck).
7. Begin mowing. See Section: Lawn & Mowing Information for tips on mowing patterns, lawn care, and troubleshooting information.
8. When finished, shut off the PTO and raise the mower using the attachment lift control lever.
9. Stop the engine (see STOPPING THE TRACTOR AND ENGINE).

⚠ WARNING

The engine will shut off if the reverse ground speed pedal is depressed while the PTO is on and the RMO has not been activated. The operator should always turn the PTO off prior to driving across on roads, paths or any area that maybe used by other vehicles. Sudden loss of drive could create a hazard.

⚠ WARNING

Mowing in reverse can be hazardous to bystanders. Tragic accidents can occur if the operator is not alert to the presence of children. Never activate RMO if children are present. Children are often attracted to the unit and the mowing activity.

Mowing in Reverse

If an operator chooses to mow in reverse, the RMO system can be used. To use the Reverse Mowing Option (RMO) turn the RMO key after the PTO is engaged. The L.E.D. light will illuminate, and the operator can then mow in reverse. Each time the PTO is disengaged the RMO needs to be reactivated if desired. The key can be removed to restrict access to the RMO feature.

Attachment Operation in Reverse

If an operator chooses to operate a PTO driven attachment in reverse, the RMO system can be used. To use the Reverse Mowing Option (RMO) turn the RMO key after the PTO is engaged. The L.E.D. light will illuminate, and the operator can then operate the attachment in reverse. Each time the PTO is disengaged the RMO needs to be reactivated if desired. The key can be removed to restrict access to the RMO feature.

Pushing the Tractor by Hand

1. Disengage the PTO and turn the engine off.
2. Pull the transmission release (B, Figure 4) back approximately 2-1/2" (6 cm) to lock into released position.
3. The tractor can now be pushed by hand.

DO NOT TOW TRACTOR
Towing the unit will cause transmission damage. • Do not use another vehicle to push or pull this unit. • Do not actuate the transmission release valve lever while the engine is running.

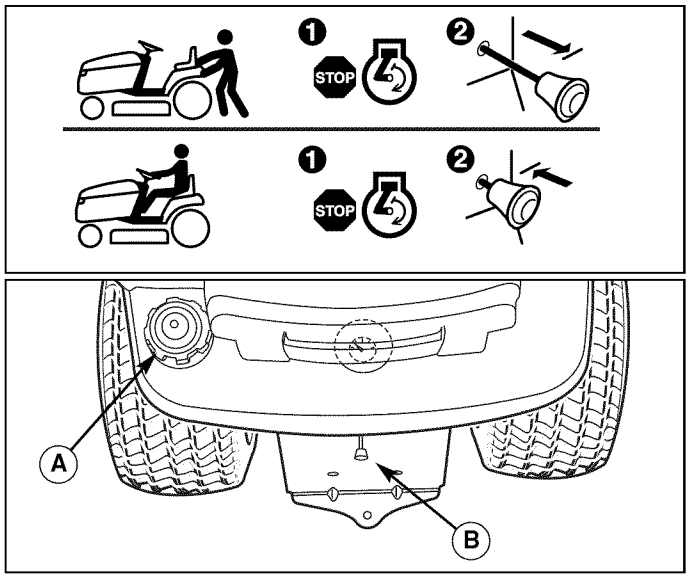


Figure 4. Transmission Release Lever & Fuel Tank
A. Fuel Tank Cap.
B. Transmission Release Lever

Adjusting Mower Cutting Height

The cutting height is infinitely adjustable between approximately 1" and 3-5/8" (2,5-9,2cm).

Electric Height of Cut Models: The cutting height adjustment switch (D, Figure 5) controls the mower cutting height. This same switch also controls the spout rotator motor when a snowthrower is installed. The arrows on the switch correspond to the direction of adjustment (UP arrow raises cutting height, RIGHT arrow rotates the spout right, etc). When the adjustment indicator has reached the end of its travel, release the switch; holding the switch down will damage the motor

Manual Lift Models: The cutting height adjustment knob (B, Figure 5) controls the mower cutting height. Turn the knob clockwise to raise the deck and counterclockwise to lower it.

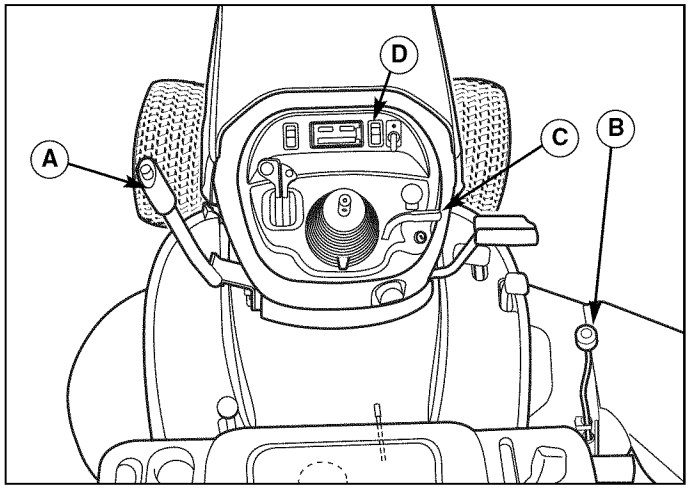
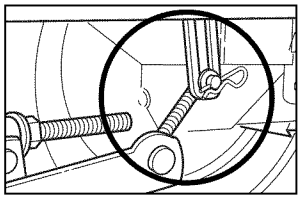
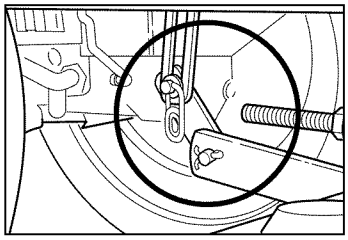


Figure 5. Raising & Lowering Mower
A. Attachment Lift - Manual
B. Cutting Height Control Knob
C. Attachment Lift - Hydraulic
D. Electric Height of Cut Switch

Mower Deck Removal & Installation

44" Simplicity, Massey Ferguson or AGCO Models





⚠ WARNING

Engage parking brake, disengage PTO, stop engine and remove key before attempting to install or remove the mower.

Removing the Mower Deck

Note: Units with electric height of cut, unplug tractor wire harness from deck harness before removing deck.

1. Park tractor on a hard, level surface such as a concrete floor. Turn off PTO switch and engine, remove the key and apply parking brake.
2. Place mower in the lowest cutting position using the mower height adjuster.
3. Place the attachment lift in the lowest position.
4. Disconnect the mower lift arm (A, Figure 6) from the tractor lift arm (B). Re-install washer (C) and safety clip (D).

⚠ CAUTION

The muffler and surrounding areas may be hot.

5. Remove belt from PTO pulley (B, Figure 7).
6. Turn wheels straight ahead. Pull back on spring-loaded lever (B, Figure 8) and lift mower hitch off of the tractor brackets.
7. Turn wheels fully left, and slide mower deck out right side of tractor.

Installing the Mower Deck

1. Park tractor, shut off PTO and engine, remove the key and apply parking brake. Turn the wheels fully to the left.
2. Place mower height adjuster (B, Figures 5) in the lowest cutting position. Place the mower lift lever in the lowest position, also. Slide mower deck under right side of tractor so that mower hitch is aligned with the front tractor hitch.
3. See Figure 8. Turn wheels straight. Pull back on the spring-loaded lever (B) while lifting up on the mower hitch. Install mower hitch onto tractor hitch brackets (A). When properly installed, the spring-loaded lever should seat fully underneath the brackets.

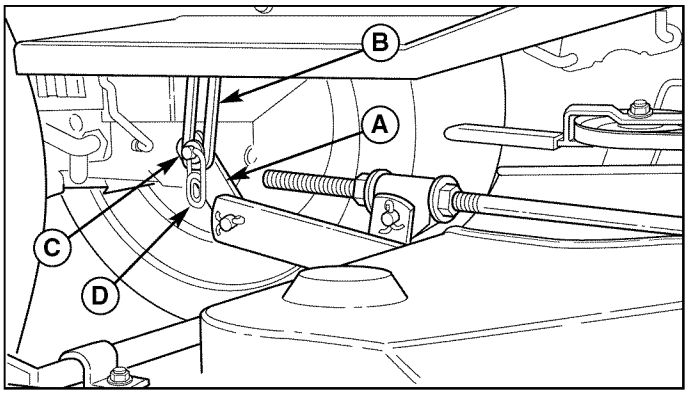


Figure 6. Lift Arms
(Viewed from underneath right side of tractor)
A. Mower Lift Arm
B. Tractor Lift Arm
C. Flat Washer
D. Safety Clip

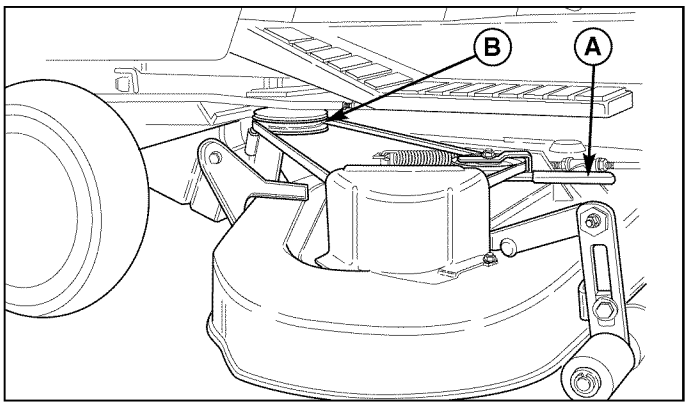


Figure 7. Removing & Installing Belt
A. Idler Arm
B. PTO Pulley

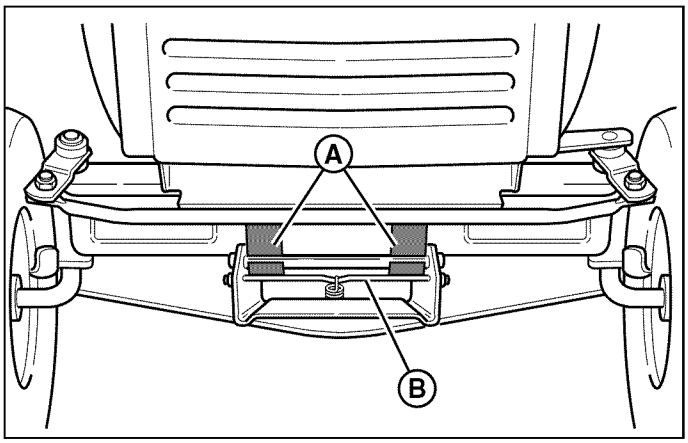


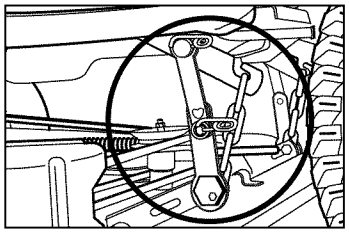
Figure 8. Mower Hitch
A. Tractor Hitch Brackets
B. Spring-Loaded Lever

4. See Figure 6. Connect the mower lift arm (A) to the tractor lift arm (B) using the flat washer (C) and safety clip (D).
5. See Figure 7. Move idler arm (A) to relieve belt tension. Install belt onto the PTO pulley (B).

Note: Units with electric height of cut, connect tractor wire harness to deck harness.

Mower Deck Removal & Installation

44" Snapper Models



⚠ WARNING

Engage parking brake, disengage PTO, stop engine and remove key before attempting to install or remove the mower.

Removing the Mower Deck

Note: Units with electric height of cut, unplug tractor wire harness from deck harness before removing deck.

1. Park tractor on a hard, level surface such as a concrete floor. Turn off PTO switch and engine, remove the key and apply parking brake.
2. Place mower in the lowest cutting position using the mower height adjuster.
3. Place the attachment lift in the highest position.
4. Disconnect the safety clips (A & H, Figure 9) and washer (G) from the lower hanger (E). Remove upper hanger (B) from lift post (F). Connect upper hanger (B) to lower hanger (E) using safety clip (A) to prevent misplacing or losing parts. Repeat on other side.
5. Place the attachment lift in the lowest position.
6. Remove lift chain (D) from lift hook (C). Repeat on other side.

⚠ CAUTION

The muffler and surrounding areas may be hot.

7. Remove belt from PTO pulley (B, Figure 7).
8. Turn wheels straight ahead. Pull back on spring-loaded lever (B, Figure 8) and lift mower hitch off of the tractor brackets.
9. Turn wheels fully left, and slide mower deck out right side of tractor.

Installing the Mower Deck

1. Park tractor, shut off PTO and engine, remove the key and apply parking brake. Turn the wheels fully to the left.
2. Place mower height adjuster (B, Figures 5) in the lowest cutting position. Place the mower lift lever in the lowest position, also. Slide mower deck under right side of tractor so that mower hitch is aligned with the front tractor hitch.

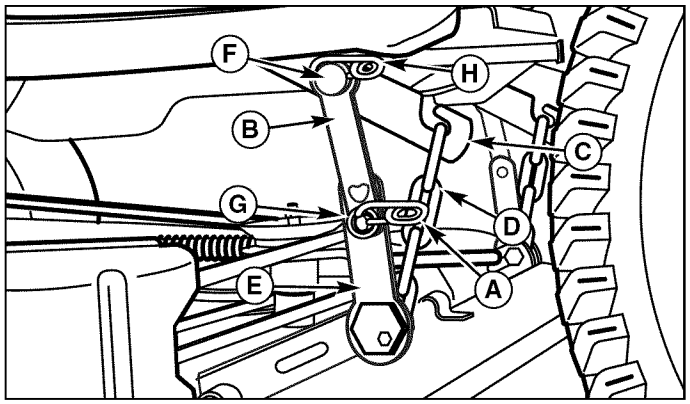


Figure 9. Lift Arms
(Viewed from underneath left side of tractor)

A. Safety Clip	**E. Lower Hanger**
B. Upper Hanger	**F. Post on Lift Hook**
C. Lift Hook	**G. Washer**
D. Lift Chain	**H. Safety Clip (Some Models)**

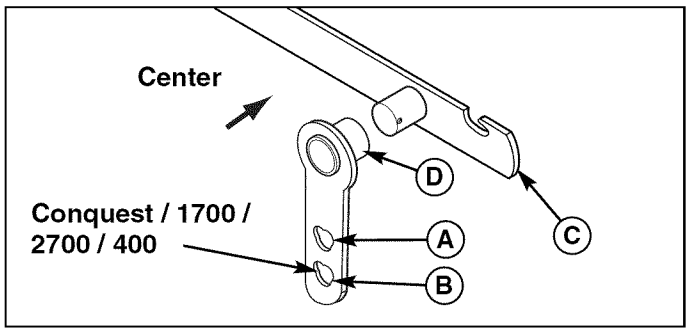


Figure 10. Upper Hanger

A. Upper Hole	**C. Lift Hook**
B. Lower Hole	**D. Long Hub**

3. See Figure 8. Turn wheels straight. Pull back on the spring-loaded lever (B) while lifting up on the mower hitch. Install mower hitch onto tractor hitch brackets (A). When properly installed, the spring-loaded lever should seat fully underneath the brackets.
4. See Figure 9. Connect the lift chain (D) to the lift hook (C). Repeat on other side.
5. Place the attachment lift in the highest position.
6. Disconnect the safety clip (A & H, Figure 9) from the upper hanger (B) and lower hanger (E) if still connected from storage. Slide upper hanger (B) over post on lift hook (F). The long hub (D, Figure 10) on the upper hanger must face toward center. Connect hole on upper hanger (B, Figure 9) to post on lower hanger (D). Secure with washer (G) and safety clip (A & H). Repeat on other side.

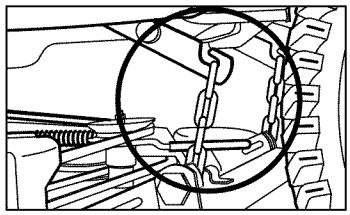
Note: Use lower hole for Conquest / 1700 / 2700 / 400 as shown in figure 10.

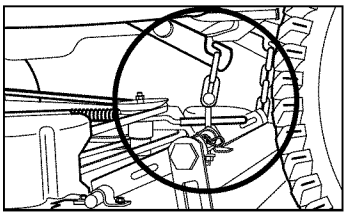
7. See Figure 7. Move idler arm (A) to relieve belt tension. Install belt onto the PTO pulley (B).

Note: Units with electric height of cut, connect tractor wire harness to deck harness.

Mower Deck Removal & Installation

Simplicity, Massey Ferguson and AGCO Models





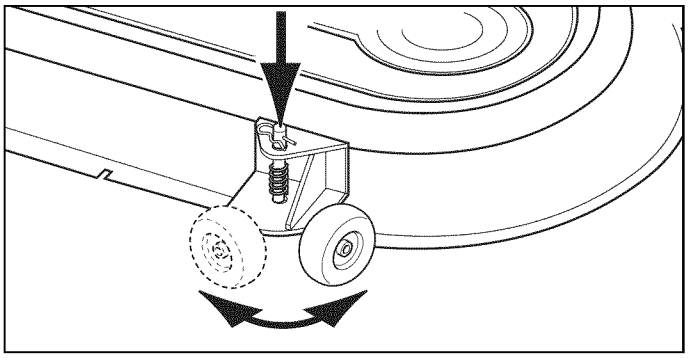


Figure 11. Pivoting Gauge Wheels - Select Models

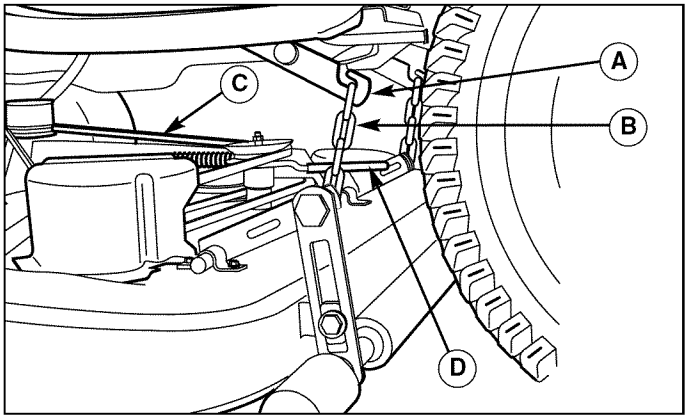


Figure 12. Mower Lift

A. Lift Hook
B. Lift Chain
C. PTO Belt
D. Idler Arm

⚠ WARNING

Engage parking brake, disengage PTO, stop engine and remove key before attempting to install or remove the mower.

Muffler and surrounding areas may be hot.

Removing the Mower Deck

Note: Units with electric height of cut, unplug tractor wire harness from deck harness before removing deck.

1. Park the tractor, fully lower the attachment lift, turn off the PTO, turn off the engine, remove the key, and engage the parking brake. If equipped, pivot the gauge wheels into sliding position (see Figure 11).
2. Place mower in the lowest cutting position using the mower height control.
3. Use the idler arm (D, Figure 12) to release tension on the PTO belt, and remove belt from the PTO pulley.
4. Pull down on the lift hooks (A, Figure 12) and unhook the lift chains (B).

⚠ CAUTION

The muffler and surrounding areas may be hot.

5. Turn the wheels straight ahead. Pull back on spring-loaded lever (B, Figure 13) and lift mower hitch off of the tractor brackets (A).
6. Turn wheels fully left, and slide mower deck out from under the right side of the tractor.

Installing the Mower Deck

NOTE: Perform mower installation on a hard, level surface such as a concrete floor.

1. Park the tractor, fully lower the attachment lift, turn off the PTO switch, turn off the engine, remove the key, and engage the parking brake. Turn the wheels fully to the left.
2. Place mower in the lowest cutting position using the mower height adjuster. Slide the mower deck under the right side of tractor so that the mower hitch is aligned with front tractor hitch (A, Figure 13).
3. See Figure 13. Turn wheels straight. Pull back on the spring-loaded lever (B) while lifting up on the mower hitch. Install the mower hitch onto tractor hitch brackets (A). When properly installed, the spring-loaded lever should seat fully underneath the brackets (A).
4. See Figure 12. Connect the mower lift chains (B) to the the tractor lift hooks (A).

NOTE 50" & 54" Mowers: The four-link lift chain is bolted to the mower deck using the third link. This is correct for most mowing applications. If mowing ditches or other surfaces that require the mower to travel below its normal range, use the fourth link.

5. See Figure 12. From left side of tractor, use the idler arm (D) to relieve belt tension. Install belt (C) onto the PTO pulley.
6. If equipped, raise the attachment lift and rotate the front gauge wheels (Figure 11) into cutting position.

Note: Units with electric height of cut, connect tractor wire harness to deck harness.

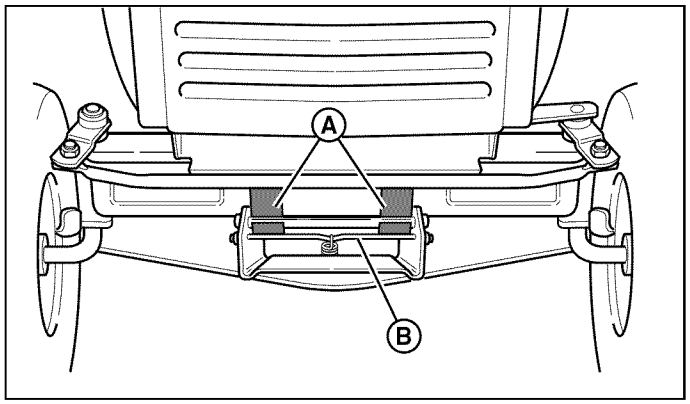
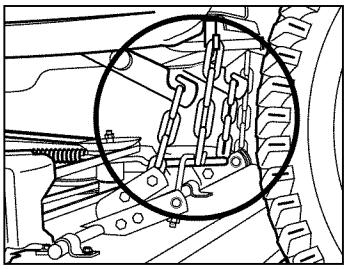


Figure 13. Mower Hitch
A. Tractor Hitch Brackets
B. Spring-Loaded Lever

Mower Deck Removal & Installation

50" & 54" Snapper Models



⚠ WARNING

Engage parking brake, disengage PTO, stop engine and remove key before attempting to install or remove the mower.

Muffler and surrounding areas may be hot.

Removing the Mower Deck

1. Park the tractor, fully lower the attachment lift, turn off the PTO, turn off the engine, remove the key, and engage the parking brake. If equipped, pivot the gauge wheels into sliding position (see Figure 11).
2. Place mower in the lowest cutting position using the mower height control.
3. Place the attachment lift in the highest position.
4. From left side of tractor, use the idler arm (F, Figure 14) to relieve belt tension. Remove the belt (E) from the PTO pulley.
5. Disconnect outside chain (D, Figure 14) from hanger (C). Repeat on other side.

⚠ CAUTION

The muffler and surrounding areas may be hot.

6. Place the attachment lift in the lowest position.
7. Disconnect lift chain (B) from lift hook (A). Repeat on other side.
8. Turn the wheels straight ahead. Pull back on spring-loaded lever (B, Figure 15) and lift mower hitch off of the tractor brackets (A).
9. Turn wheels fully left, and slide mower deck out from under the right side of the tractor.

Installing the Mower Deck

NOTE: Perform mower installation on a hard, level surface such as a concrete floor.

1. Park the tractor, fully lower the attachment lift, turn off the PTO switch, turn off the engine, remove the key, and engage the parking brake. Turn the wheels fully to the left.

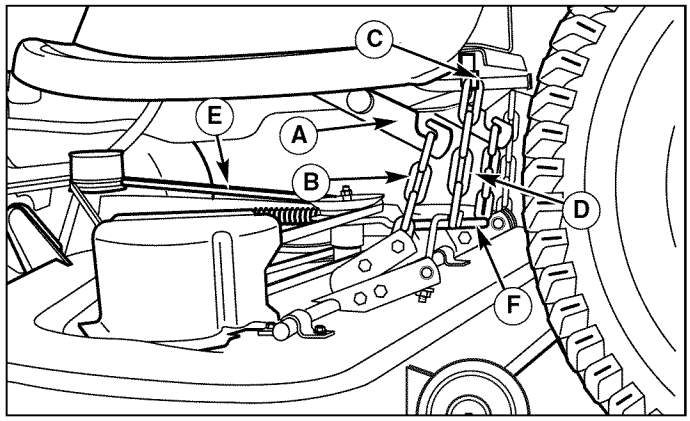


Figure 14. Mower Lift

A. Lift Hook
B. Lift Chain, Inside
C. Hanger
D. Outside Chain
E. PTO Belt
F. Idler Arm

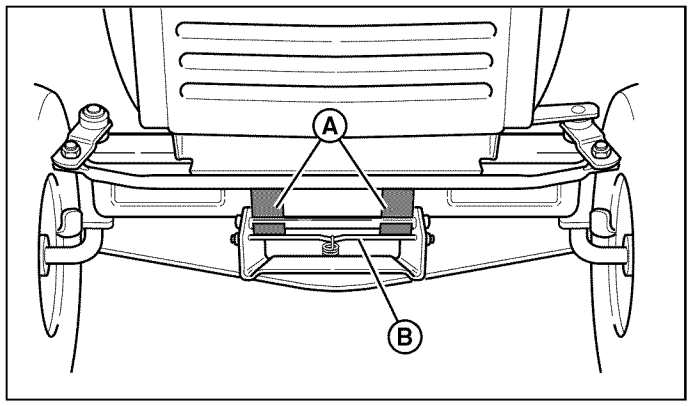


Figure 15. Mower Hitch

A. Tractor Hitch Brackets
B. Spring-Loaded Lever

2. Place mower in the lowest cutting position using the mower height adjuster. Slide the mower deck under the right side of tractor so that the mower hitch is aligned with front tractor hitch (A, Figure 15).
3. See Figure 15. Turn wheels straight. Pull back on the spring-loaded lever (B) while lifting up on the mower hitch. Install the mower hitch onto tractor hitch brackets (A). When properly installed, the spring-loaded lever should seat fully underneath the brackets (A).
4. Connect the lift chains (B, Figure 14) to the the tractor lift hooks (A).
5. Place the attachment lift in the highest position.
6. Connect outside chains (D, Figure 14) to hanger (C).
7. From left side of tractor, use the idler arm (F, Figure 14) to relieve belt tension. Install belt (E) onto the PTO pulley.
8. If equipped, raise the attachment lift and rotate the front gauge wheels (Figure 11) into cutting position.

Attaching a Trailer

The maximum horizontal drawbar force allowed is 444 Newton. The maximum vertical drawbar force is 222 Newton. This equates to a 396 lbs (180 kg) trailer on a 10 degree hill. Secure the trailer with an appropriately sized clevis pin (A, Figure 16) and clip (B).

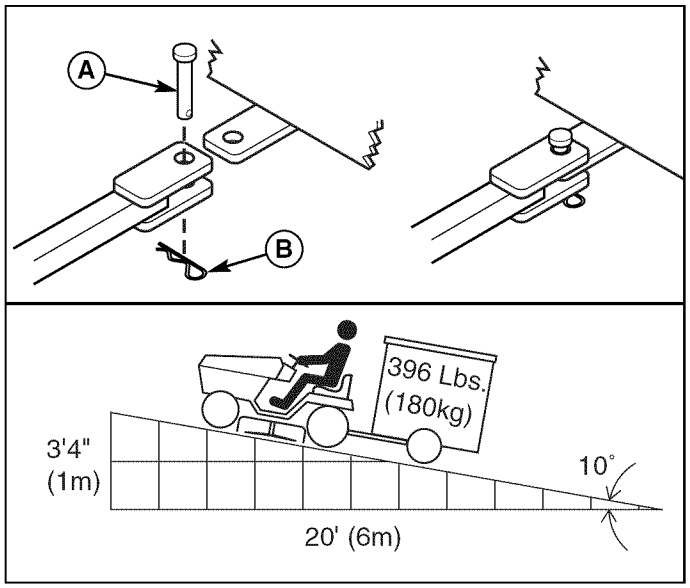


Figure 16. Trailer Weight Recommendations
A. Clevis Pin
B. Clip

⚠ WARNING

Never store the unit (with fuel) in an enclosed, poorly ventilated structure. Fuel vapors can travel to an ignition source (such as a furnace, water heater, etc.) and cause an explosion.

Fuel vapor is also toxic to humans and animals.

Storage

Before you store your unit for the off-season, read the Maintenance and Storage instructions in the Safety Rules section, then perform the following steps:

- Disengage the PTO, set the parking brake, & remove the key.
- Perform engine maintenance and storage measures listed in the engine owner's manual. This includes draining the fuel system, or adding stabilizer to the fuel (do not store a fueled unit in an enclosed structure - see warning).
- Battery life will be increased if it is removed, put in a cool, dry place and fully charged about once a month. If the battery is left in the unit, disconnect the negative cable.

Before starting the unit after it has been stored:

- Check all fluid levels. Check all maintenance items.
- Perform all recommended checks and procedures found in the engine owner's manual.
- Allow the engine to warm up for several minutes before use.

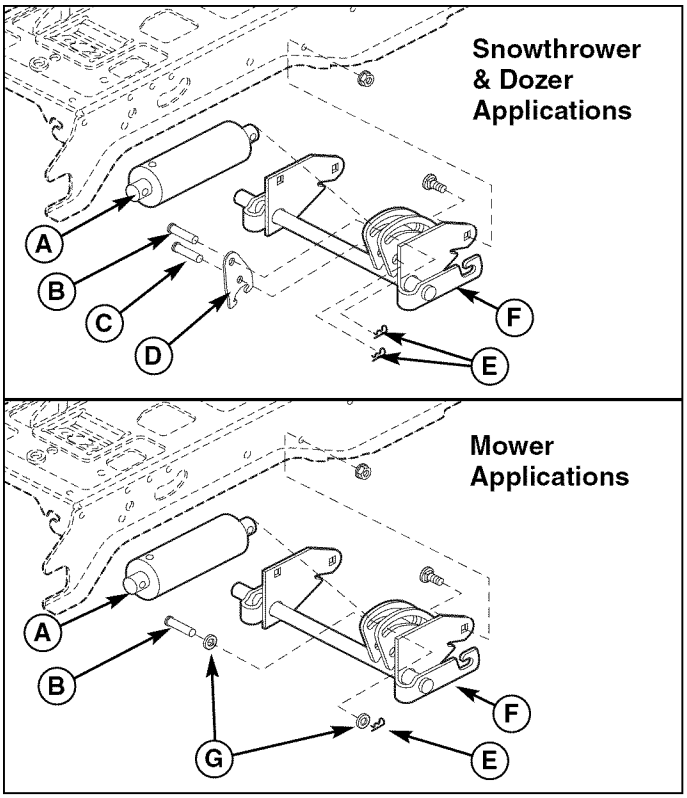


Figure 17. Lift Lock Plate - Hydraulic Lift Models
A. Lift Cylinder
B. Flat Head Pin (Original)
C. Flat Head Pin (New)
D. Lock Plate
E. Hair Pin Clips
F. Lift Shaft Assy.
G. Washers

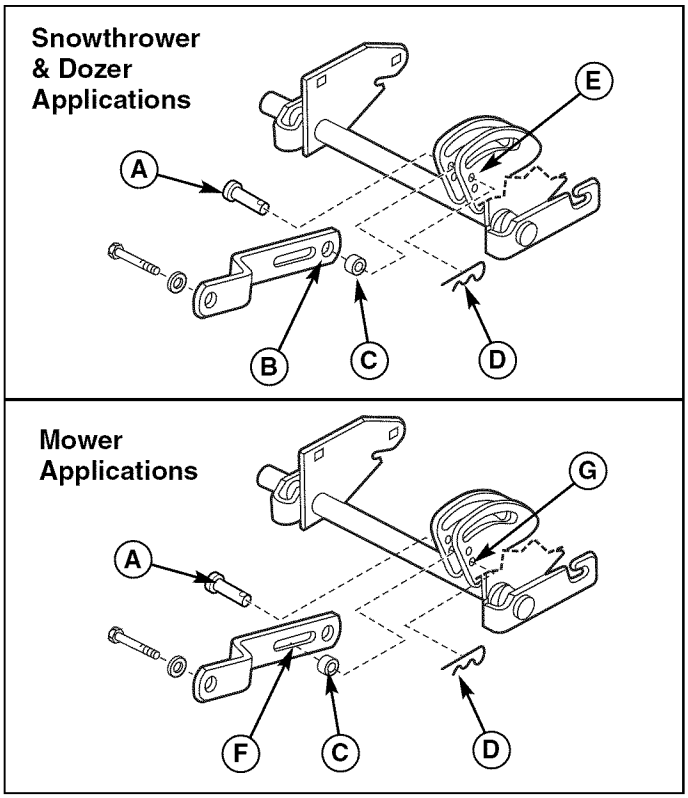


Figure 18. Lift Link - Manual Lift Models
A. Pin
B. Rear Hole of Lift Bar (Snowthrower Applications)
C. Spacer
D. Hair Pin Clip
E. Upper Hole (Snowthrower Applications)
F. Slot of Lift Link (Mower Applications)
G. Lower Hole (Mower Applications)

Lift Variations When Using Attachments

When a front-mounted attachment such as a snowthrower or dozer blade is used with the tractor, the lift mechanism must be locked to provide downward force. When the mower is reinstalled the downward pressure lock must be released so that the mower can float.

Hydraulic Lift Models

Fully lower the hydraulic lift. The lift assembly is spring loaded so it will need to be held in the down position to perform of the following procedures.

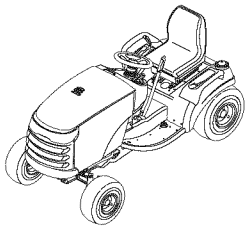
When using a snowthrower or dozer, the downward pressure lock plate (D, Figure 17) and an additional pin (C) is installed. These parts are included with the attachment. Note that the washers (G) are not used with the lock plate.

When mowing, the downward pressure lock plate (D) is removed and replaced with two washers (G). The additional pin (C) is also removed.

Manual Lift Models

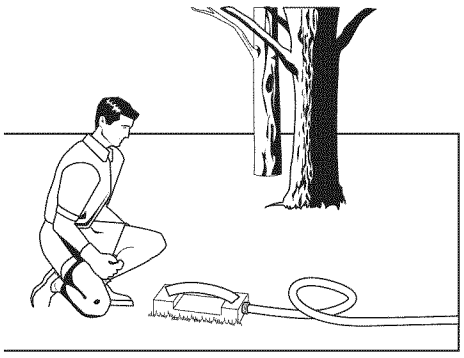
NOTE: These instructions apply to Conquest / 1700 / 2700 / 400 Series tractors equipped with a lift lever kit.

The lift link is installed differently depending on what attachment is being used. Refer to Figure 18 for link installation information.



Lawn Care & Mowing Information

How and When to Water, Fertilize & Aerate



Most lawns are watered too often, but with too little water. However too much water can allow development of diseases with your lawn. **It is best to water the lawn only when necessary, and then to water it slowly, evenly, and deeply—imitating a slow, soaking rain.**

WHEN TO WATER YOUR LAWN

When the lawn begins to wilt, the grass's color dulls, or footprints stay compressed for more than a few seconds, the lawn is beginning to dry out, and needs additional moisture. The best time to water is early morning to allow the water to soak deeply into the lawn and reduce the amount that evaporates in the hot afternoon sun.

HOW TO WATER YOUR LAWN

The best method of watering a lawn is to imitate a slow, soaking rain, applying about 1 inch of water.

HOW TO FERTILIZE YOUR LAWN

Fertilizing with a slow-release fertilizer provides missing nutrients which help create slow, even growth. Remember that over-fertilizing can cause harm, and that most fertilizing should be applied in the spring so that it will release into the lawn through the summer.

AERATING YOUR LAWN

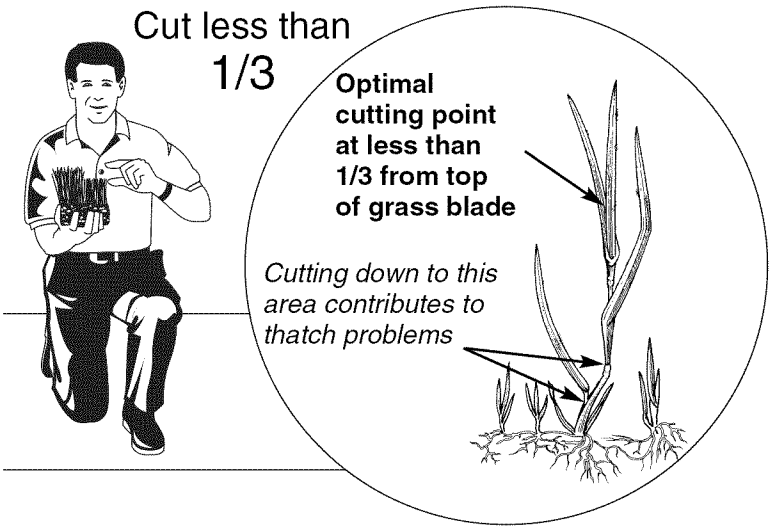
Consider aerating your lawn in spring. Using an aerator to remove cores of soil from the lawn increases the speed of clipping decomposition and encourages deeper root growth by opening up the soil and permitting greater movement of water, fertilizer and air.

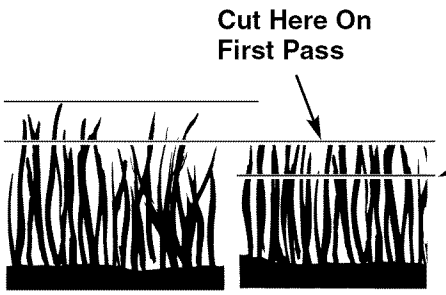
How High To Mow the Grass

Cutting the grass too short causes weak, thin grass plants, which are easily damaged by dry periods and pests.

Letting grass grow a bit longer—especially when it is hot and dry—reduces heat build-up, preserves needed moisture and protects the grass from heat damage and other problems.

Cutting off too much at one time shocks the plant's growth system and weakens the grass plants. **A good rule of thumb is the 1/3 rule: to cut no more than one third of the grass height, and never more than 1 inch at a time.**

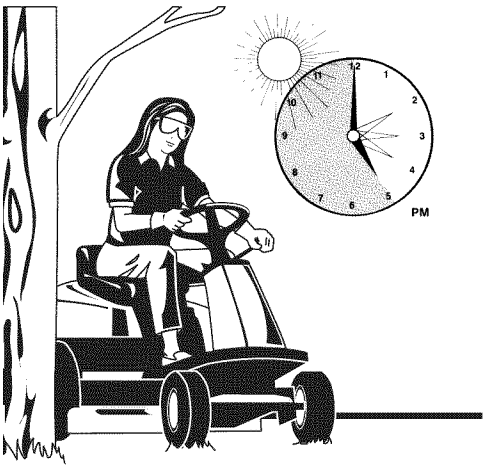

Cut less than 1/3
Optimal cutting point at less than 1/3 from top of grass blade
Cutting down to this area contributes to thatch problems



Tall Grass Requires Incremental Cutting

For extremely tall grass, set the cutting height at maximum for the first pass, and then reset it to the desired height and mow a second or third time.

Don't cover the grass surface with a heavy layer of clippings.



When and How Often to Mow

The time of day and condition of the grass greatly affect the results you'll get when mowing. For the best results, follow these guidelines:

- Mow when the grass is between 3"-4" (7,5-10 cm) high.
- Mow with sharp blades. Short clippings of grass one inch or shorter decompose more quickly than longer blades. Sharp mower blades cut grass cleanly and efficiently, preventing frayed edges which harm the grass.
- Mow at time of day when the grass is cool and dry. Late afternoon or early evening often provide these ideal mowing conditions.
- Avoid mowing after rain or even heavy dew, and never mulch when the grass is wet (moist grass does not mulch well, and clumps beneath the mower deck).

Note: Always operate the engine at full throttle when mowing.

Proper Mowing Speed

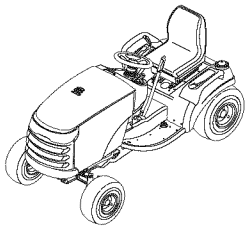
ENGINE SPEED & GROUND SPEED

Always operate the engine at full throttle when mowing. If you hear the engine slowing down, you are mowing too fast—maintaining a slower ground speed will improve the cutting efficiency of the blades and prevents many common cutting problems.

Select an appropriate ground speed for the thickness and height of the grass you are cutting (3rd gear or slower for manual gear models, or mid-range or slower for hydro models). If you hear the engine slowing down you are mowing too fast, use a slower ground speed.

HOW MUCH GRASS TO CUT OFF

Mow when the grass is 3"-4" inches (7,5-10cm) long. Do not cut off more that 1" (2.5cm) of grass in a single pass.



Regular Maintenance

MAINTENANCE SCHEDULE & PROCEDURES

The following schedule should be followed for normal care of your tractor and mower.

SAFETY ITEMS	Before Each Use	Every 5 Hours	Every 25 Hours	Every 100 Hours	Every 250 Hours	Spring & Fall
Check Safety Interlock System						•
Check Tractor Brakes						•
Check Mower Blade Stopping Time				•		•
TRACTOR MAINTENANCE ITEMS	**Before Each Use**	**Every 5 Hours**	**Every 25 Hours**	**Every 100 Hours**	**Every 250 Hours**	**Spring & Fall**
Check Tractor/Mower for loose hardware		•				
Check / Clean Radiator (If Equipped) **	•	•				
Check / Clean Oil Cooler (If Equipped) **			•			
Check / Clean Cooling Fins (If Equipped)				•		
Check / Adjust PTO Clutch					•	
Lubricate Tractor & Mower **			•			
Lubricate Rear Axle Shafts						Yearly
Clean Battery & Cables				•		
Check Tire Pressure			•			
Clean Deck & Check/Replace Mower Blades**				•		
Perform Transmission Maint. (Varies by Model)					***	
Change Hydraulic System Filter (If Equipped)					**	
ENGINE MAINTENANCE ITEMS	**Before Each Use**	**Every 5 Hours**	**Every 25 Hours**	**Every 100 Hours**	**Every 250 Hours**	**Spring & Fall**
Check Engine Oil Level	•					
Check / Change Engine Air Filter *						
Change Engine Oil & Filter *						
Inspect Spark Plug(s) *						
Check / Replace Fuel Filter *						

* Refer to engine owner's manual. Change original engine oil after initial break-in period.
** More often in hot (over 85° F: 30° C) weather or dusty operating conditions.
*** Service after the first 50 hours of operation, then every 250 hours of operation.

Check / Clean Oil Cooler (Select Models)

SERVICE INTERVAL: EVERY 25 HOURS, OR AS NECESSARY

The engine oil cooler is located on the side of the engine (A, Figure 19) and should be cleaned with compressed air at regular intervals or if dirty.

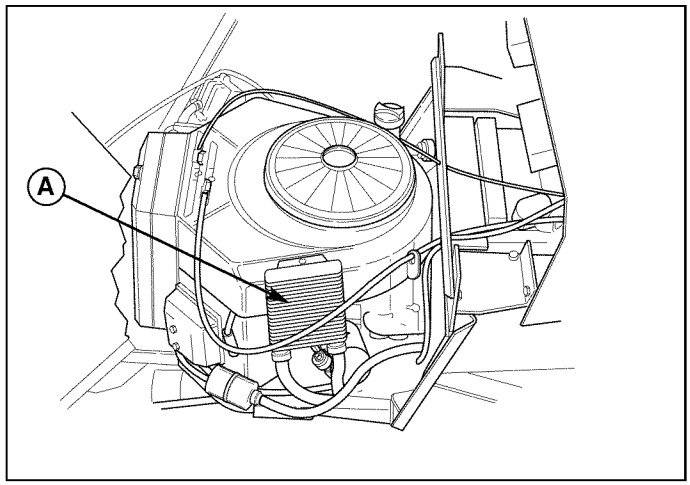


Figure 19. Clean Oil Cooler
A. Oil Cooler

Safety Interlock System Check

SERVICE INTERVAL: EVERY FALL & SPRING

Check the function of the safety interlock system using the test procedure found on page 14 of this manual. If the tractor fails any of the tests, see your dealer.

Blade Brake Check

SERVICE INTERVAL: EVERY 100 HOURS OR FALL & SPRING

Mower blades and mower drive belt should come to a complete stop within five seconds after electric PTO switch is turned off.

1. With tractor in neutral, PTO disengaged and operator in seat, start the engine.
2. Look over the left-hand footrest at the mower drive belt. Engage the PTO and wait several seconds. Disengage the PTO and check the amount of time it takes for the mower drive belt to stop.
3. If mower drive belt does not stop within five seconds, re-adjust the clutch or see your dealer.

PTO Clutch Adjustment Check

SERVICE INTERVAL: EVERY 250 HRS

Check the PTO clutch adjustment after every 250 hours of operation–or if the clutch starts slipping or will not engage. Check and adjust the clutch using the procedure outlined in the Adjustments section of this manual.

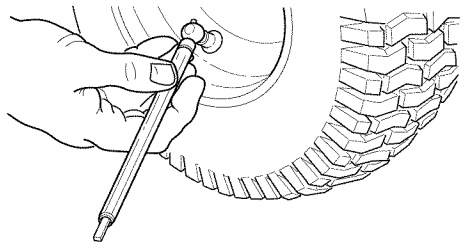
Engine Maintenance

Refer to the engine owner's manual for all engine maintenance procedures and recommendations.

Check Tire Pressures

SERVICE INTERVAL: EVERY 25 HOURS

Tire Pressure should be checked periodically, and maintained at the levels shown in the chart. Note that these pressures may differ slightly from the "Max Inflation" stamped on the side-wall of the tires. The pressures shown provide proper traction, improve cut quality, and extend tire life.



Size	PSI	bar
24 x 12-12	6-8	,41-,55
23 x 10.5-12	6-8	,41-,55
16 x 6.50-8	15	1,0

Figure 20. Tire Pressure

Battery Maintenance

⚠ WARNING

When removing or installing battery cables, disconnect the negative cable FIRST and reconnect it LAST. If not done in this order, the positive terminal can be shorted to the frame by a tool.

Cleaning the Battery and Cables

SERVICE INTERVAL: EVERY 100 HOURS

1. Disconnect the cables from the battery, negative cable first (A, Figure 21).
2. Remove the battery hold-down (C) and battery.
3. Clean the battery compartment with a solution of baking soda and water.
4. Clean the battery terminals and cable ends with a wire brush and battery terminal cleaner until shiny.
5. Reinstall the battery in the battery compartment, and secure with the battery hold-down (C).
6. Reattach the battery cables, positive cable first (B).
7. Coat the cable ends and battery terminals with petroleum jelly or non-conducting grease.

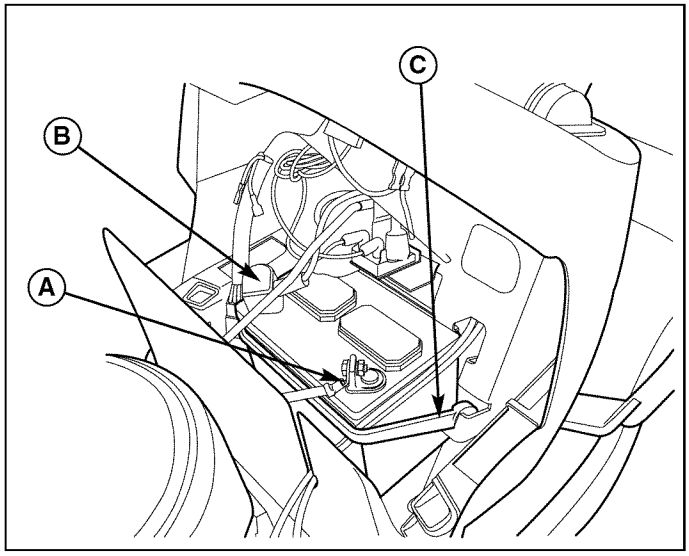


Figure 21. Battery
A. Negative Cable
B. Positive Cable & Cover
C. Rubber Hold-Down Strap

Lubrication

SERVICE INTERVAL: EVERY 25 HOURS

Lubricate the unit at the locations shown in Figures 22-25 as well as the lubrication points listed. Generally, all moving metal parts should be oiled where contact is made with other parts. Keep oil and grease off belts and pulleys. Wipe surfaces clean before and after lubrication.

Grease:

- steering linkage
- foot pedal
- mower linkage
- transmission idler assembly pivot
- rear axle shafts (remove wheel hubs)
- front axle where it contacts the frame

Use grease fittings when present. Automotive lithium grease is recommended.

Oil:

- control linkage
- seat adjustment assembly
- brake linkage
- mower deck height adjustment linkage
- manual lift lever

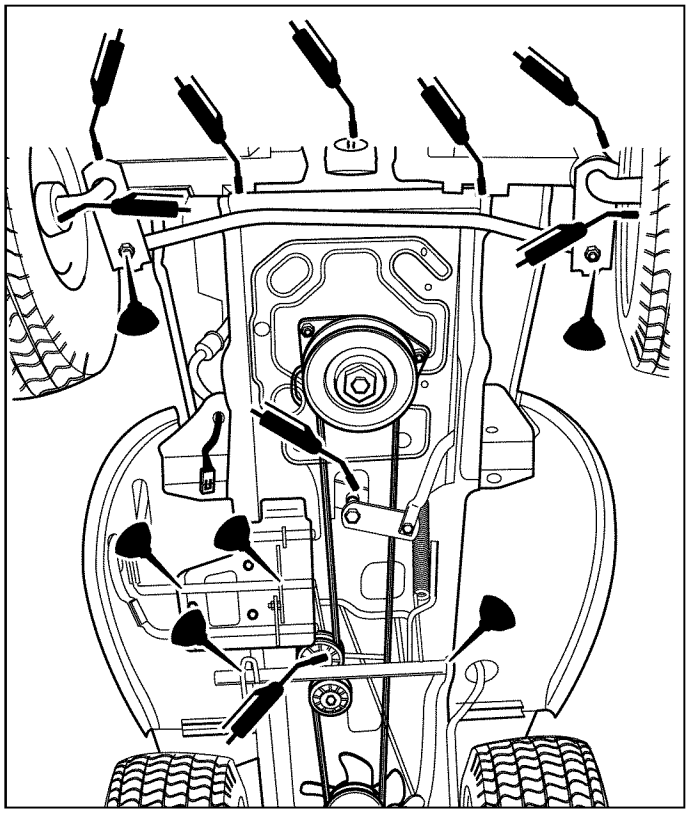


Figure 22. Lubricating the Tractor

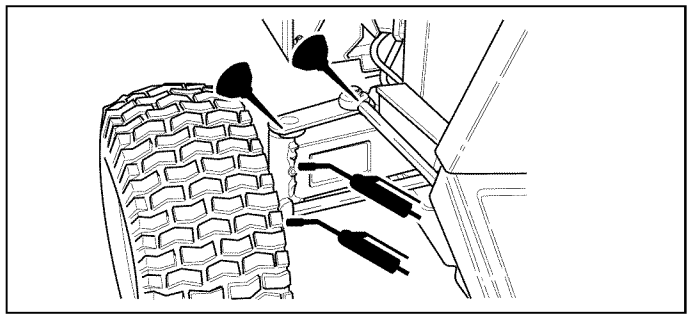


Figure 23. Lubricate Steering Linkage

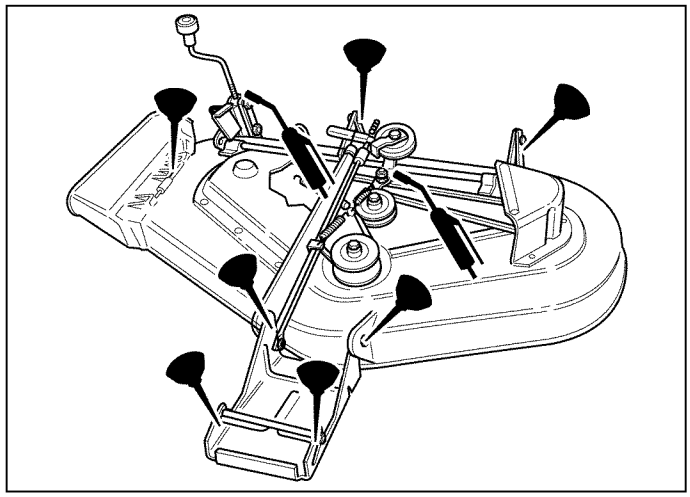


Figure 24. Mower Lubrication Points

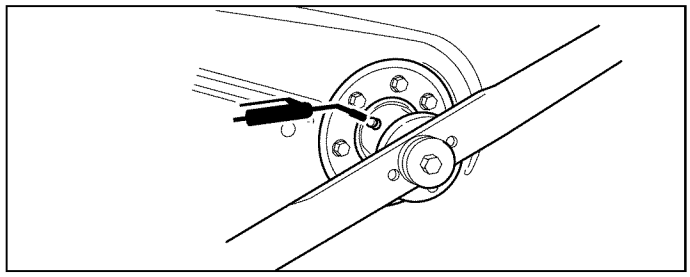


Figure 25. Arbor Lubrication Point

Lubricate Rear Axle Shafts

SERVICE INTERVAL: YEARLY

We recommend removing the rear wheel hubs and lubricating the axle shafts yearly. This prevents the wheel hubs from seizing onto the axle shaft and makes future service easier.

1. Turn off the ignition, turn off the PTO, engage the parking brake, and block the front tires.
2. Using a jack or chain hoist positioned at the center of the rear frame, carefully jack the unit up until the rear tires are approximately 1" - 2" (2.5-5cm) off the ground.

NOTE: For overall unit stability during service, do not jack rear end higher than required for wheel removal.

3. Support the rear of the unit on jackstands positioned under the rear frame.

NOTE: Your axle assembly may differ slightly from the assembly pictured: the quantity of washers is adjusted on a tractor by tractor basis during assembly to allow a small amount of axle end-play.

4. Remove the hardware retaining the wheel assembly to the axle and lubricate the axle shaft using anti-seize compound or lithium grease.
5. Reinstall the components in reverse order of disassembly and lower the unit. Be sure the key (A, Figure 26) is in place in the axle keyway.

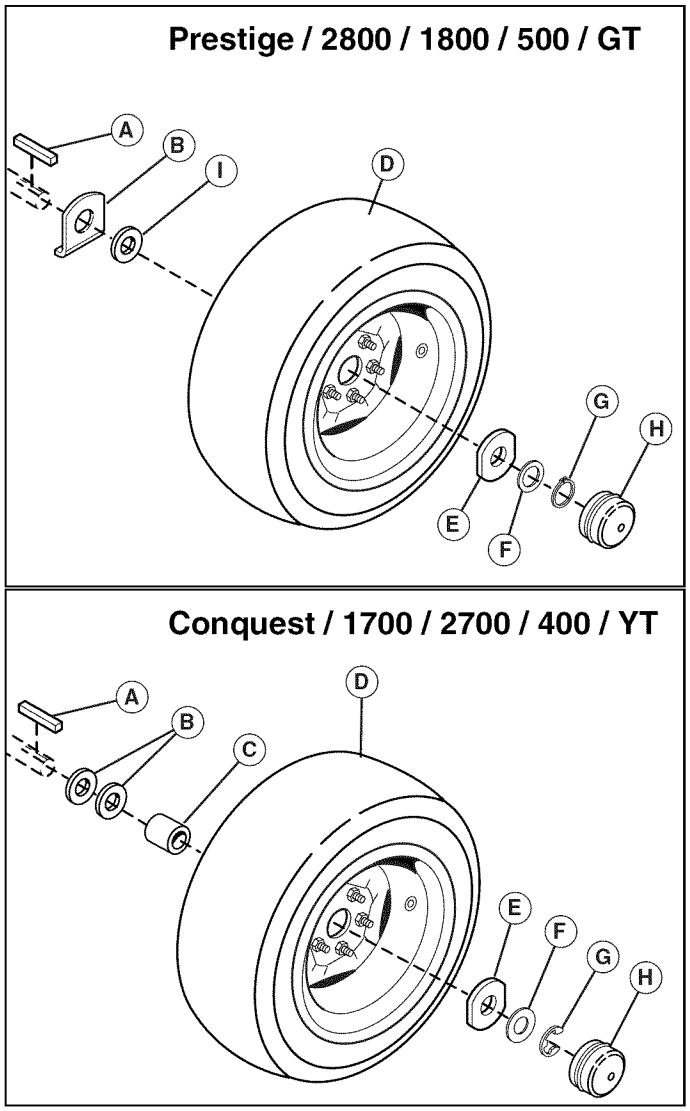


Figure 26. Rear Axle Hardware

A. Key
B. Stationary Washer / Washer
C. Spacer
D. Wheel & Hub
E. Axle Cap Retainer
F. Small Washer
G. Retaining Ring
H. Axle Cap
I. Large Washer

⚠ WARNING

For your personal safety, do not handle the sharp mower blades with bare hands. Careless or improper handling of blades may result in serious injury.

⚠ WARNING

For your personal safety, blade mounting capscrews must each be installed with a hex/spline washer and spring washer, then securely tightened. Torque blade mounting capscrew to 45 - 55 ft. lbs. (61 - 75 N.m.)

Servicing the Mower Blabes

SERVICE INTERVAL: EVERY 100 HOURS OR AS REQUIRED

NOTE: Mower blades must be timed perpendicular to each other.

1. Remove mower deck (see "Mower Deck Removal").
2. See Figure 27. To remove blade for sharpening, use a block of wood to prevent blade rotation while loosening the capscrew.
3. **44", & 50" Mowers:** Remove the capscrew (D, Figure 29), spring washer (C), hex washer (B), and blade.

   54" Mowers: Remove the capscrew (D, Figure 30), spring washer (C), spline washer (B), and blade.
4. Use a file to sharpen blade to a fine edge. If blade is damaged, it must be replaced.
5. Balance the blade as shown in Figure 28. Center the blade's hole on a nail lubricated with a drop of oil. A balanced blade will remain level.
6. Reinstall the blade (Figures 29-30) with the tabs pointing up toward the mower deck as shown. Reinstall the alignment pin (E).
7. **44", & 50" Mowers:** Reinstall the hex washer (B, Figure 29), spring washer (C) and capscrew (D). Use a wooden block (A) to prevent blade rotation while tightening the capscrew (D) to 61-75 N.m (45-55 ft. lbs.).

   54" Mowers: Reinstall the spline washer (B, Figure 30), spring washer (C) and capscrew (D). Use a wooden block (A) to prevent blade rotation while tightening the capscrew (D) to 61-75 N.m (45-55 ft. lbs.).

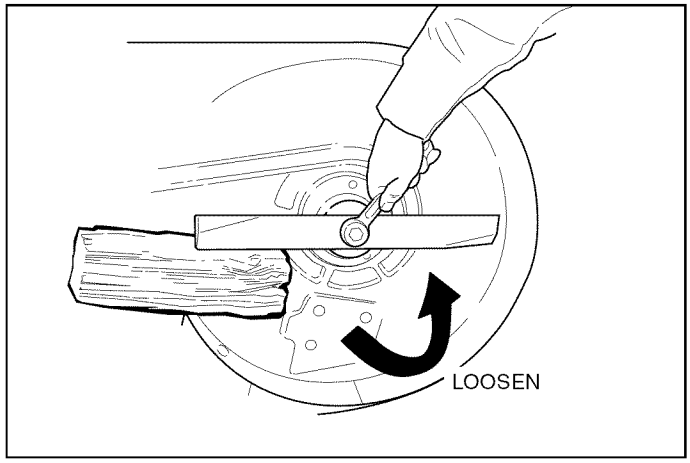


Figure 27. Blade Removal

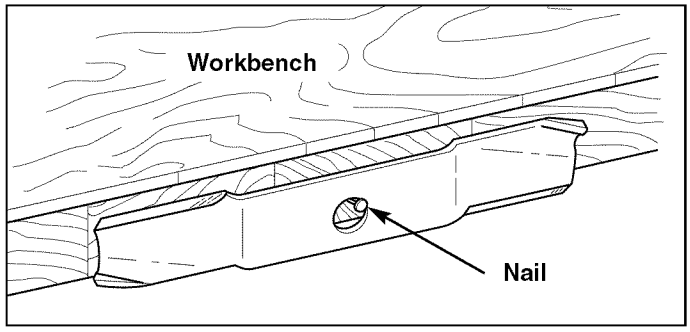


Figure 28. Balancing The Blade

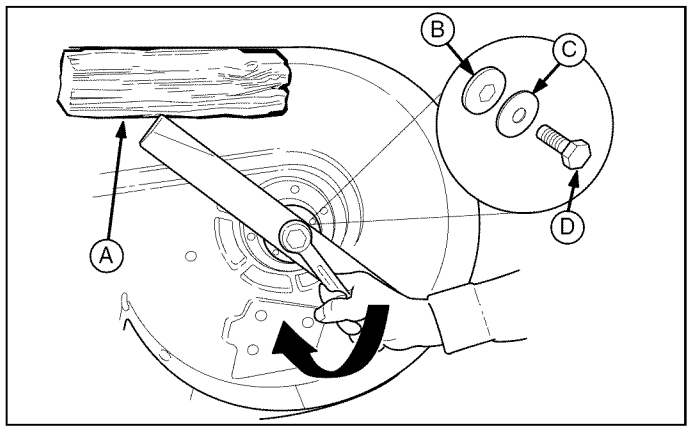


Figure 29. Blade Installation - 44", 50" Mowers
A. 4x4 Wood Block
B. Hex Washer
C. Spring Washer
D. Blade Bolt

Transmission Identification

Several service procedures within this book are identified by, and vary by, transmission type. To determine what transmission is in your tractor, check the identification tag attached to the axle of the transmission (Figure 31a), or check your tractor's parts book.

Transmission Maintenance

Do not allow dirt, water, or other debris to enter the expansion chamber or transmission. Even a small amount of dirt can damage the transmission

K66 Maintenance

The K66 is a sealed unit and does not require regular maintenance. The transmission oil level can be checked at the access hole located behind the left rear wheel (see Figure 31b). Shine a light at the back of the expansion chamber to see the oil level. There should be approximately 7/16" (1 cm) of oil in the chamber. If there is no oil in the chamber, see your dealer.

TRANSMISSION INFORMATION

Transmission Oil Capacity: Apx. 2.6 qt (2.5L).

Transmission Oil Type: SAE 10W-30 with a minimum API rating of SG/CD.

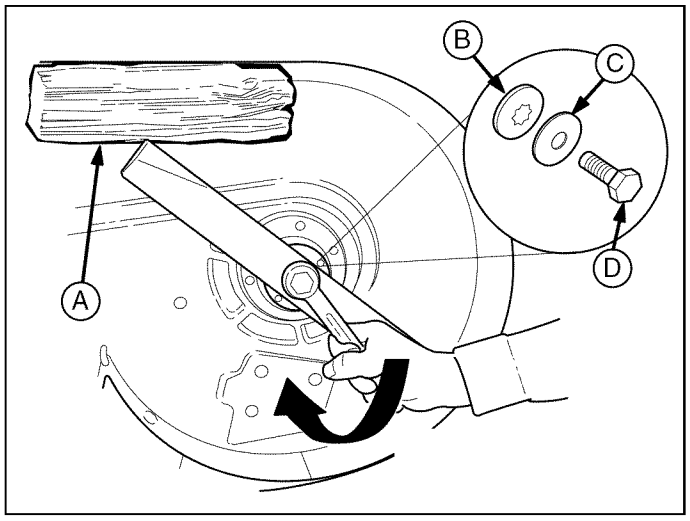


Figure 30. Blade Installation - 54" Mowers
A. 4x4 Wood Block
B. Spline Washer
C. Spring Washer
D. Blade Bolt

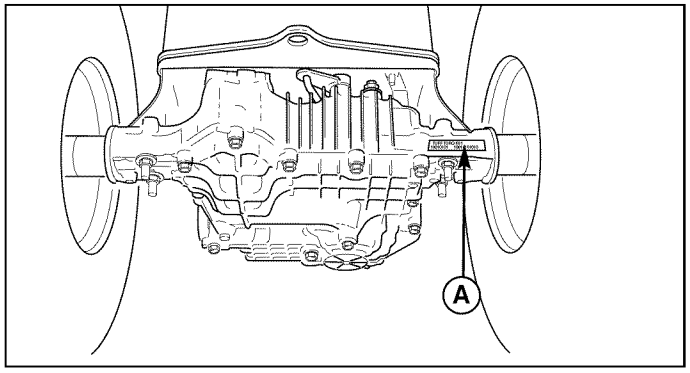


Figure 31a. Transmission ID Tag Location
A. ID Tag

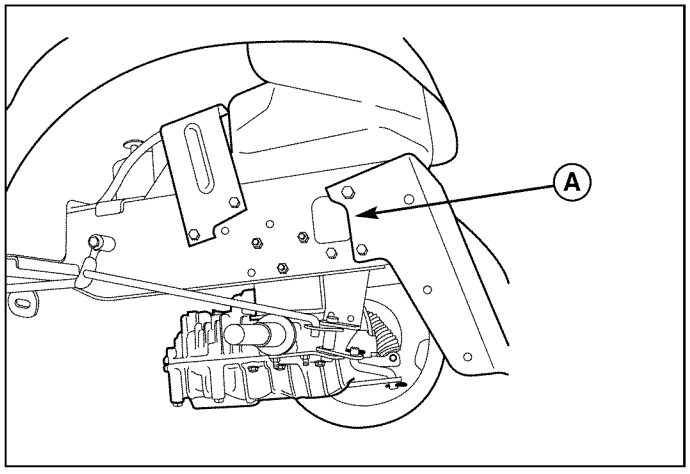


Figure 31b. Transmission Oil Reservoir - K66
A. K66 Reservoir Access Hole

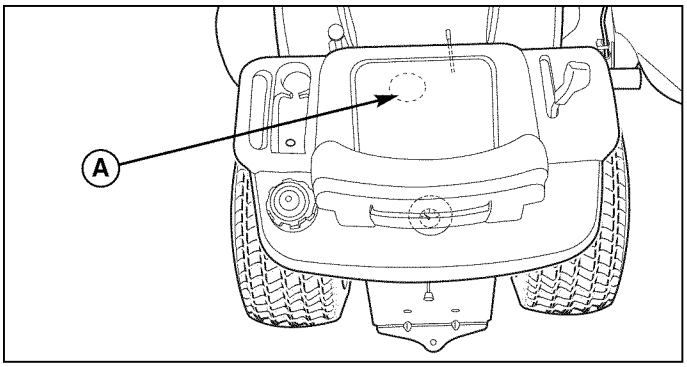


Figure 32. Seat Deck Access Plug
A. Expansion Chamber Access Plug

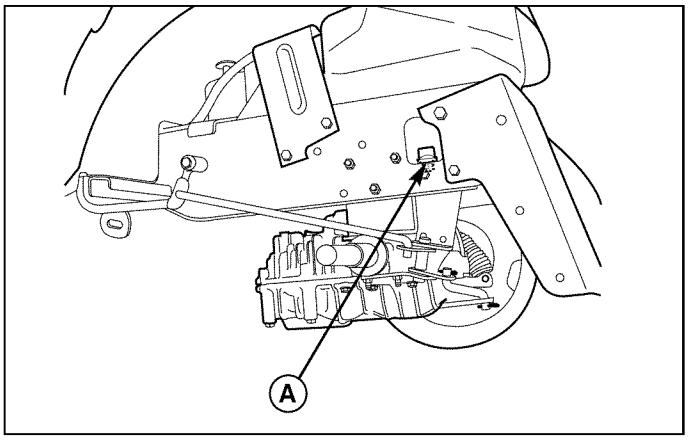


Figure 33. Differential Fill Plug Access
A. Differential Fill Plug

K71 Maintenance

The following maintenance procedures must be performed on the K71 transmission after the first 50 hours of operation and then after every 250 hours.

TRANSMISSION INFORMATION

Transmission Oil Capacity: Apx. 4-1/2 qt (4.25L)

Transmission Oil Type: SAE 10W-30 with a minimum API rating of SG/CD.

Internal Oil Filter Part Number: 1719832

Hydraulic System Oil Filter Part Number: 1719168

CHECK TRANSMISSION OIL LEVEL

Service Interval: Every 5 Hours

NOTE: Lift cylinder should be extended.

1. Slide the seat assembly back to access the plastic plug in the top of the seat deck (see Figure 32). Remove the plug.
2. Clean the area around the expansion chamber. Open the lid and check that there is oil present in the bottom of the expansion chamber. If there is no oil present, add 10W-30 SG engine oil until the oil level is 7/16" (1 cm) above the bottom. DO NOT OVERFILL. Empty space is required in the expansion chamber for heat expansion.

CHANGE TRANSMISSION OIL, INTERNAL FILTER, & HYDRAULIC SYSTEM FILTER

Service Interval: After 50 Hrs, Then Every 250 Hrs

NOTE: The oil should also be changed whenever it has become discolored from overheating or contamination.

NOTE: Support the frame with jackstands and remove the left rear wheel for easier access to the differential fill plug (Figure 33).

1. Place a drain pan under the transmission and remove the two 14mm drain plugs (A, Figure 34).
2. Remove the differential fill cap (B, Figure 35).
3. Remove the filter access cap (B, Figure 34).
4. Remove and replace the hydraulic system filter (A, Figure 35). Thread the new filter onto the filter base and tighten 1/2 to 3/4 turns past finger tight.

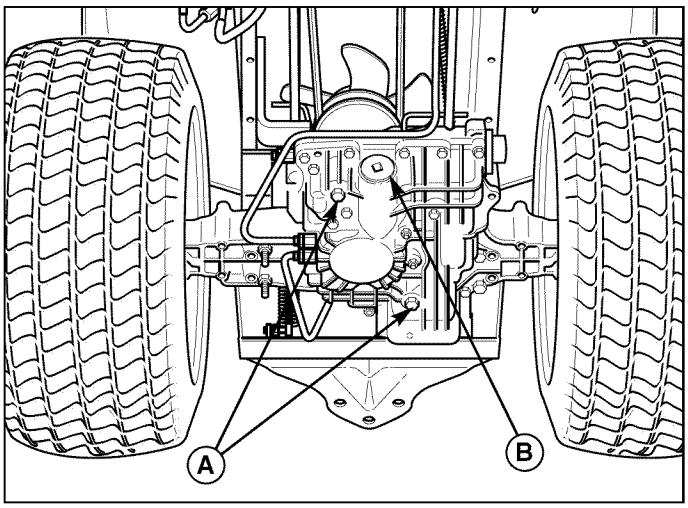


Figure 34. Transmission Drain Plugs
A. 14mm Drain Plugs
B. Filter Access Cap

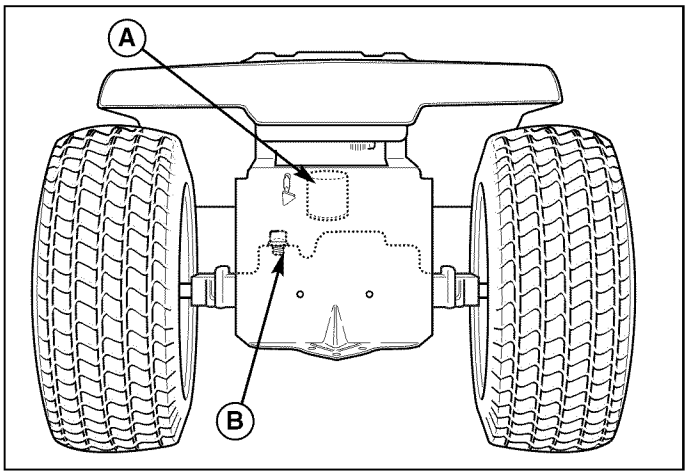


Figure 35. Hydraulic System Oil Filter
A. Hydraulic System Filter
B. Differential Fill Cap

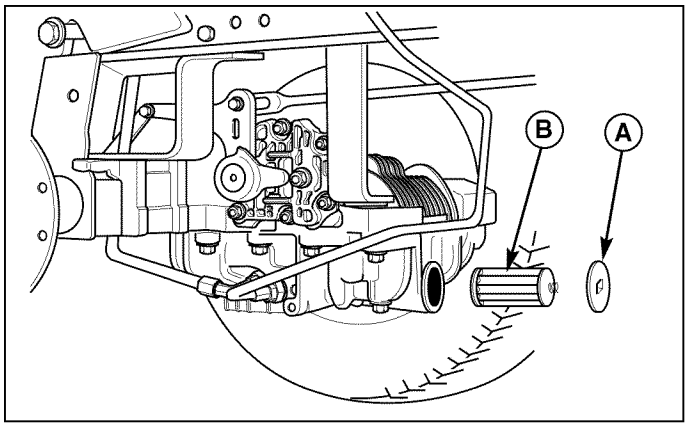


Figure 36. Internal Transmission Filter Service
A. Filter Access Cap B. Internal Filter

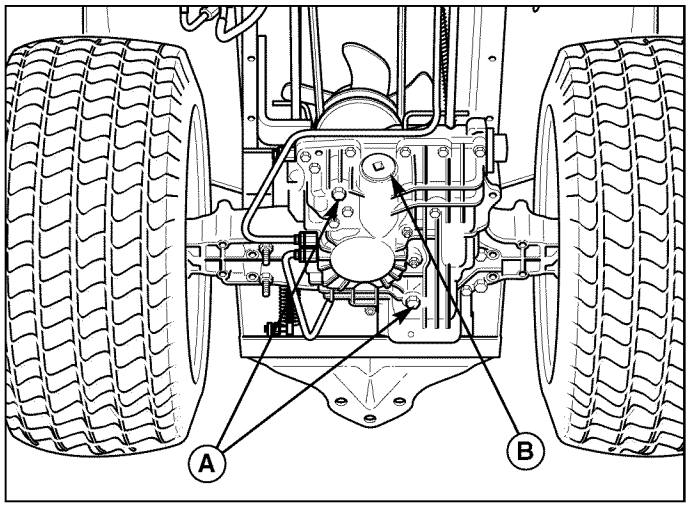


Figure 37. Transmission Drain Plugs
A. 14mm Drain Plugs
B. Filter Access Cap

5. Remove and replace the internal transmission filter (B, Figure 36).
6. Reinstall the filter access cap (A, Figure 36) and the two 14mm drain plugs (A, Figure 37).
7. Using a long funnel, add 2 quarts of oil to the differential fill (See Figure 33). The differential fill cap should have been removed earlier).
8. Reinstall the differential fill cap (A, Figure 33).
9. Remove the expansion chamber access plug (A, Figure 38) and expansion chamber cover. Add 2 quarts (1.9L) of oil to the expansion chamber a few ounces at a time.
10. Reinstall the expansion chamber cover and access plug (Figure 38).
11. Test run the tractor for 10 minutes. Drive forward and backward; raise and lower the attachment lift several times.
12. Recheck the transmission oil level. There should be 7/16" (1 cm) of oil visible in expansion chamber. **DO NOT OVERFILL**. Empty space is required for heat expansion.

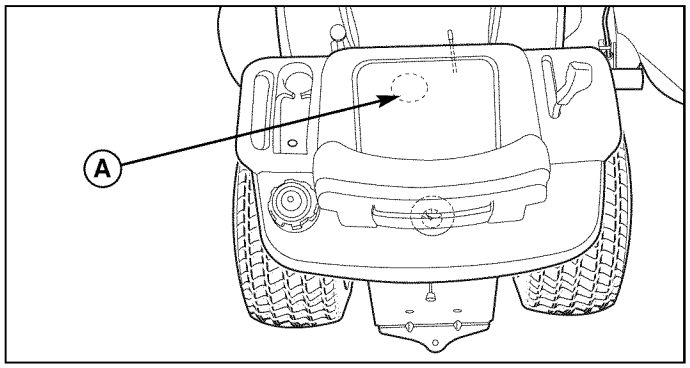
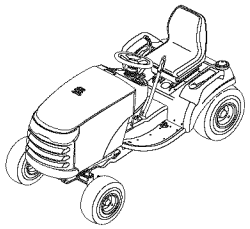


Figure 38. Seat Deck Access Plug
A. Expansion Chamber Access Plug

Troubleshooting, Adjustment, & Service



Troubleshooting

While normal care and regular maintenance will extend the life of your equipment, prolonged or constant use may eventually require that service be performed to allow it to continue operating properly.

The troubleshooting guide below lists the most common problems, their causes, and remedies.

See the information on the following pages for instructions on how to perform most of these minor adjustments and service repairs yourself. If you prefer, all of these procedures can be performed for you by your local authorized dealer.

⚠ WARNING

To avoid serious injury, perform maintenance on the tractor or mower only when the engine is stopped and the parking brake engaged.

Always remove the ignition key, disconnect the spark plug wire and fasten it away from the plug before beginning the maintenance, to prevent accidental starting of the engine.

TROUBLESHOOTING THE TRACTOR

PROBLEM	CAUSE	REMEDY
Engine will not turnover or start.	1. Brake pedal not depressed.	Fully depress brake pedal.
	2. PTO (electric clutch) switch in ON position.	Place in OFF position.
	3. Cruise control engaged.	Move lever to Neutral position.
	4. Out of fuel.	If engine is hot, allow it to cool, then refill the fuel tank.
	5. Engine flooded.	Disengage choke.
	6. Circuit breaker tripped.	Wait one minute for automatic reset. Replace if defective.
	7. Battery terminals require cleaning.	See Battery Maintenance Section.
	8. Battery discharged or dead.	Recharge or replace.
	9. Wiring loose or broken.	Visually check wiring & replace broken or frayed wires. Tighten loose connections.
	10. Solenoid or starter motor faulty.	See your dealer.
	11. Safety interlock switch faulty	See your dealer.
	12. Spark plug(s) faulty, fouled or incorrectly gapped.	Clean and gap or replace. See engine manual.
	13. Water in fuel.	Drain fuel & refill with fresh fuel. Replace fuel filter.
	14. Gas is old or stale.	Drain fuel & refill with fresh fuel. Replace fuel filter.
Engine starts hard or runs poorly.	1. Fuel mixture too rich.	Clean air filter. Check choke adjustment
	2. Spark plug(s) faulty, fouled, or incorrectly gapped.	Clean and gap or replace. See engine manual.
Engine knocks.	1. Low oil level.	Check/add oil as required.
	2. Using wrong grade oil.	See engine manual.
Excessive oil consumption.	1. Engine running too hot.	Clean engine fins, blower screen and air cleaner. Clean radiator screen.
	2. Using wrong weight oil.	See engine manual.
	3. Too much oil in crankcase.	Drain excess oil.
Engine exhaust is black.	1. Dirty air filter.	Replace air filter. See engine manual.
	2. Choke closed.	Open choke.
Engine runs, but tractor will not drive.	1. Ground speed control pedals not depressed.	Depress pedals.
	2. Transmission release lever in "push" position.	Move into drive position.
	3. Drive belt is broken.	See Drive Belt Replacement.
	4. Drive belt slips.	See cause and remedy below.
	5. Parking brake is engaged.	Disengage parking brake.

Tractor Troubleshooting Cont.

Tractor drive belt slips.	1. Clutch/brake is out of adjustment.	See Adjustments Section.
	2. Pulleys or belt greasy or oily.	Clean as required.
	3. Belt stretched or worn.	Replace with new belt.
	4. Idler pulley pivot bracket "frozen" in declutched position.	Remove idler pulley bracket, clean and lubricate.
Brake will not hold.	1. Brake is incorrectly adjusted.	See Brake Adjustment.
	2. Internal brake worn.	See your dealer.
Tractor steers hard or handles poorly.	1. Steering linkage is loose.	Check and tighten any loose connections. See Steering Gear Adjustment.
	2. Improper tire inflation.	Check and correct.
	3. Front wheel spindle bearings dry.	Grease spindles. See Lubricating the Tractor.

TROUBLESHOOTING THE MOWER

PROBLEM	CAUSE	REMEDY
Mower will not raise.	1. Lift linkage not properly attached or damaged.	Attach or repair.
	2. Dirt in hydraulic lines.	Change hydraulic system filter.
	3. Brake pedal depressed.	Release brake pedal to power transmission.
	4. Tractor harness not connected to deck harness.	Reconnect harness.
	5. Height of cut switch broken.	Replace switch.
Mower cut is uneven.	1. Mower not leveled properly.	See Mower Adjustment.
	2. Tractor tires not inflated equally or properly.	See Maintenance Section.
Mower cut is rough looking.	1. Engine speed too slow.	Set to full throttle.
	2. Ground speed too fast.	Slow down.
	3. Blades are dull.	Sharpen or replace blades. See Mower Blade Service.
	4. Mower drive belt slipping because it is oily or worn.	Clean or replace belt as necessary.
	5. Check PTO (Electric Clutch) Adjustment.	See Adjustments Section.
	6. Blades not properly fastened to arbors.	See Servicing the Mower Blades.
Engine stalls easily with mower engaged.	1. Engine speed too slow.	Set to full throttle.
	2. Ground speed too fast.	Slow down.
	3. Carburetor improperly adjusted.	See Engine Manual.
	4. Cutting height set too low.	Cut tall grass at maximum cutting height during first pass.
	5. Discharge chute jamming with cut grass.	Cut grass with discharge pointing toward previously cut area.
	6. Engine not up to operating temperature.	Run engine for several minutes to warm-up.
	7. Starting mower in tall grass.	Start the mower in a cleared area.
Excessive mower vibration.	1. Blade mounting screws are loose.	Tighten to 45-55 ft.lbs. (61-75 N.m.).
	2. Mower blades, arbors, or pulleys are bent.	Check and replace as necessary.
	3. Mower blades are out of balance.	Remove, sharpen, and balance blades. See Servicing the Mower Blades.
	4. Belt installed incorrectly.	Reinstall Correctly.
Excessive belt wear or breakage.	1. Bent or rough pulleys.	Repair or replace.
	2. Using incorrect belt.	Replace with correct belt.
Mower drive belt slips or fails to drive.	1. Idler pulley spring broken or not properly attached.	Repair or replace as needed.
	2. Belt stops out of adjustment.	Check belt stops.
	3. Mower drive belt broken.	Replace drive belt.
	4. PTO clutch out of adjustment.	Adjust PTO clutch.

Battery Charging

⚠ WARNING

Keep open flames and sparks away from the battery; the gasses coming from it are highly explosive. Ventilate the battery well during charging.

A dead battery or one too weak to start the engine may be the result of a defect in the charging system or other electrical component. If there is any doubt about the cause of the problem, see your dealer. If you need to replace the battery, follow the steps under Cleaning the Battery & Cables in the Regular Maintenance Section.

To charge the battery, follow the instructions provided by the battery charger manufacturer as well as all warnings included in the safety rules sections of this book. Charge the battery until fully charged (until the specific gravity of the electrolyte is 1.250 or higher and the electrolyte temperature is at least 60° F). Do not charge at a rate higher than 10 amps.

Seat Adjustment

Pitch Adjustment

The pitch of the seat can be adjusted to one of three positions. To adjust, remove the carriage bolts, spacers, washers, and nuts (B, Figure 39) from the hinge and reinstall them in the desired holes.

Seat Slide Adjustment

The seat can also be adjusted forward and back. Move the lever (A, Figure 39), position the seat as desired, and release the lever to lock the seat into position.

Seat Spring Adjustment

The seat springs (C, Figure 39) can be adjusted to provide a softer or firmer ride. Tilt the seat forward and slide the spring assembly (C) forward for a softer ride, and back for a firmer ride.

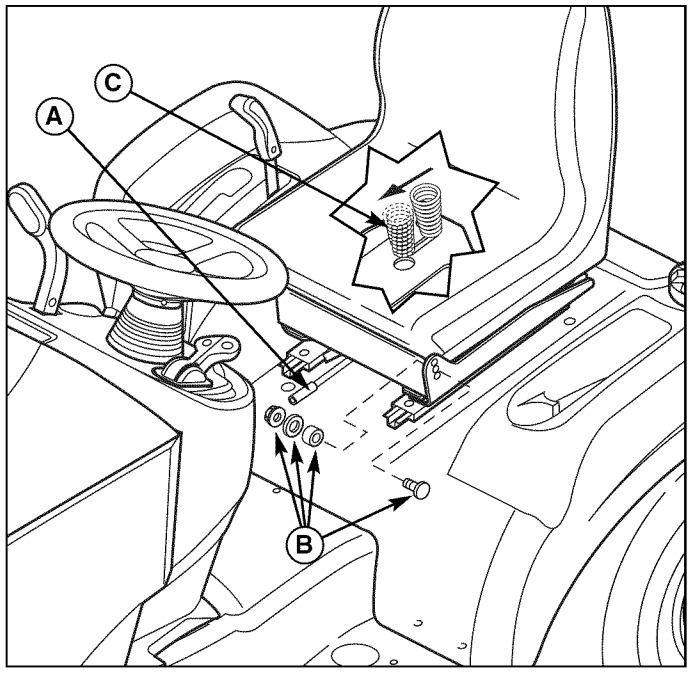


Figure 39. Seat Adjustment
A. Seat Adjustment Lever
B. Carriage Bolt, Spacer, Washer, & Nut
C. Seat Spring

Manual Lift Assist Adjustment

Models with large, left-side lift lever.

The manual lift assist spring tension can be adjusted to compensate for the additional load of various attachments.

1. Locate the adjustment bolt (A, Figure 40) at the lower left corner of the engine compartment bulkhead.
2. Turn the bolt (A) clockwise to increase assist. Turn the bolt (A) counterclockwise to reduce lift assist.

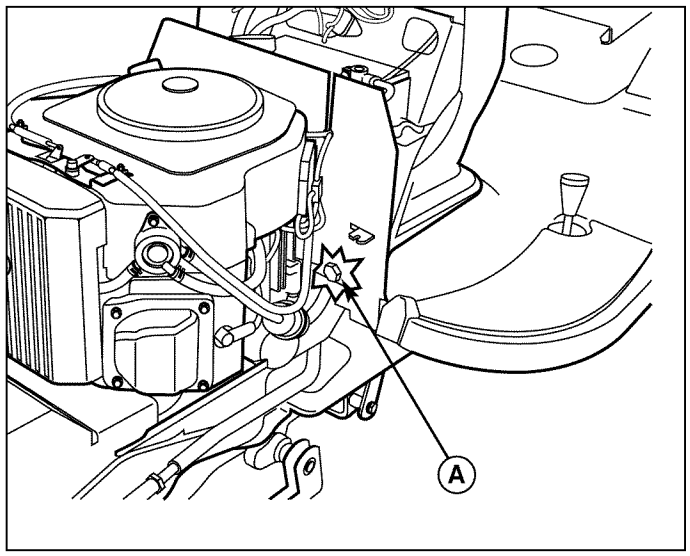


Figure 40. Manual Lift Assist Adjustment
A. Adjustment Bolt

Steering Wheel Adjustment

NOTE: The steering wheel on Snapper models is not adjustable.

1. Use a suitable punch to remove the roll pin at the base of the steering wheel (B, Figure 41).
2. Pull down on the rubber boot to expose the two holes in the steering shaft (A).
3. Align the hole in the steering wheel with the appropriate steering shaft hole and install the roll pin.

NOTE: Steering wheel is factory installed with the roll pin in the bottom hole.

Steering Gear Adjustment

If there is excessive slack in the steering system, the steering gear backlash can be removed.

1. See Figure 42. Locate the steering gear assembly on the underside of the tractor. Loosen the two nuts and adjust the bracket so the gear teeth are closely meshed.
2. Tighten nuts (A, Figure 42) to 36-44 ft. lbs. (49-59 Nm) after adjustment.

Brake Adjustment

1. Disengage the PTO, stop the engine, block the wheels, remove the ignition key, and engage the parking brake.
2. Remove the mower deck (see Mower Deck Removal).
3. Locate the brake spring (A, Figure 43) and adjustment nut (B).
4. With the parking brake engaged, measure the compressed spring length. The spring should be 2-1/2" (6,4 cm) when compressed.

   If the spring is not within this range, turn the adjustment nut (B, Figure 43) to compress or release the spring.

   If this adjustment does not correct a braking problem, see your dealer.

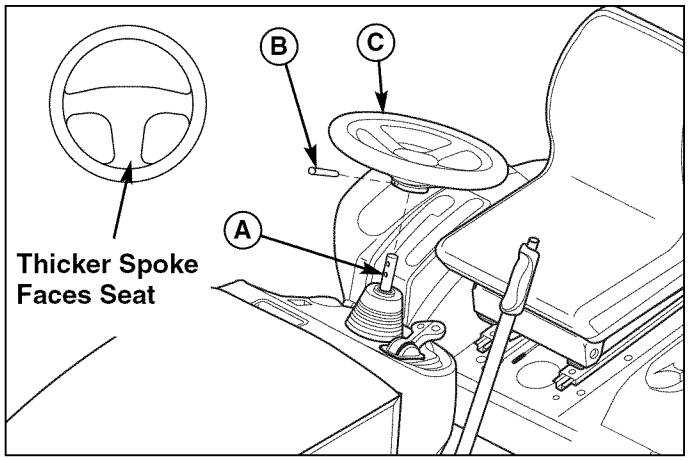


Figure 41. Steering Wheel Components
A. Steering Shaft
B. Roll Pin
C. Steering Wheel

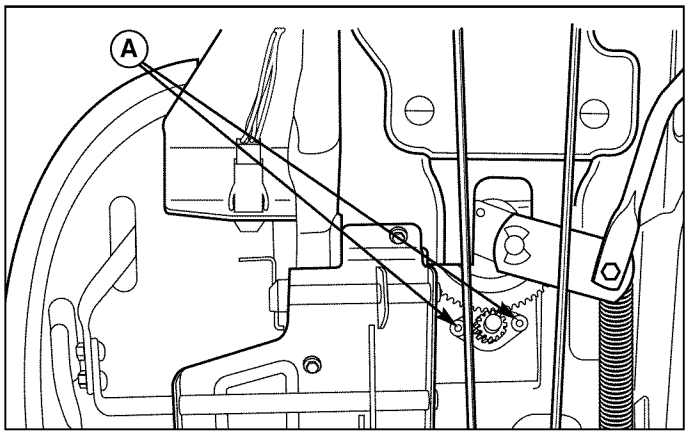


Figure 42. Steering Gear Adjustment
A. Nuts

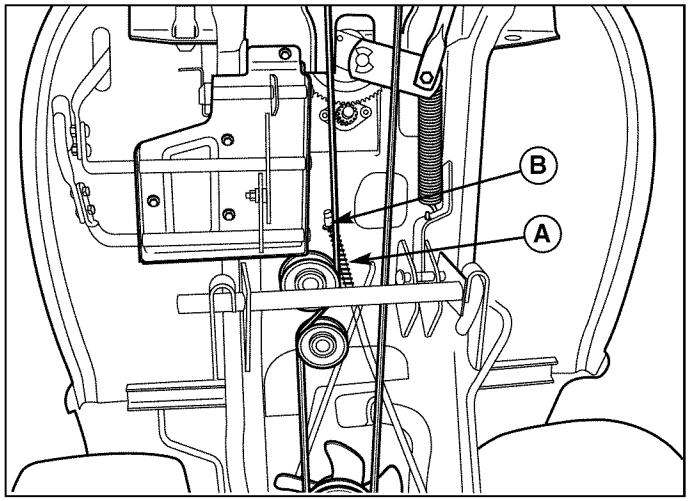


Figure 43. Brake Spring Adjustment
A. Brake Spring
B. Adjustment Nut

PTO clutch adjustment

⚠ WARNING

To avoid serious injury, perform adjustments only with engine stopped, key removed and tractor on level ground.

Check the PTO clutch adjustment after every 250 hours of operation. Also perform the following procedure if the clutch is slipping or will not engage, or if a new clutch has been installed.

1. Remove key from ignition switch and disconnect spark plug wires to prevent the possibility of accidental starting while the PTO is being adjusted.
2. See Figure 44. Note the position of the 3 adjustment windows (A) in the side of the brake plate and the nylock adjustment nuts (B).
3. Insert a .012"-.015" (2,5-4mm) feeler gauge (C) through each window, positioning the gauge between the rotor face and the armature face as shown in Figure 45.
4. Alternately tighten the adjustment nuts (B, Figure 44) until the rotor face and armature face just contacts the gauge.
5. Check the windows for an equal amount of tension when the gauge is inserted and removed, and make any necessary adjustments by tightening or loosening the adjustment nuts.

NOTE: The actual air gap between the rotor and armature may vary even after performing the adjustment procedure. This is due to dimensional variations on component parts, and is an acceptable condition.

6. Check the mower blade stopping time. The mower blades and mower drive belt should come to a complete stop within five seconds after the electric PTO switch is turned off.
7. Perform the BLADE BRAKE CHECK found in the MAINTENANCE Section. Mower blades and mower drive belt should come to a complete stop within five seconds after electric PTO switch is turned off.

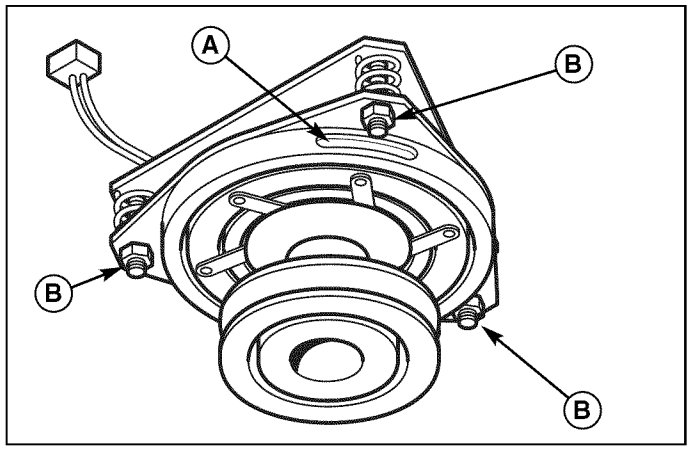


Figure 44. PTO Clutch Adjustment
A. Adjustment Window (Qty. 3, one shown)
B. Adjustment Nut

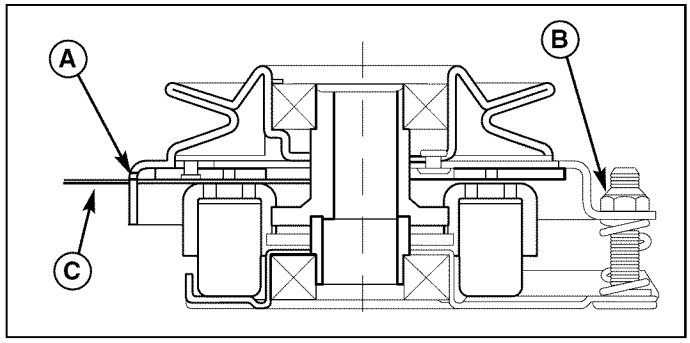


Figure 45. Adjust PTO Clutch
A. Window
B. Adjustment Nut
C. Feeler Gauge

Mower Adjustments

⚠ WARNING

Before checking mower, shut off PTO and engine, remove the key, and allow all moving parts to stop.

⚠ CAUTION

DO NOT remove the mower deck baffles. The baffles help prevent grass clippings from becoming airborne and plugging up the engine cooling fins.

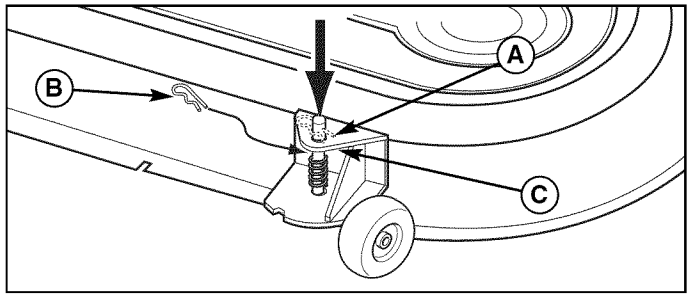


Figure 46. Pivoting Gauge Wheel Adjustment
A. Hair Pin (Upper Position)
B. Hair Pin (Lower Position)
C. Gauge Wheel Bracket

Gauge Wheels (Select Models)

The mower gauge wheels can be placed in several positions depending on the height of cut. When using higher cutting heights, set the wheels in the lower position. When using lower cutting heights, set the wheels in the upper position. To adjust:

PIVOTING GAUGE WHEELS

1. Remove the hair pin clip (A, B, Figure 46).
2. For upper position, install the pin (A) through the spindle above the bracket (C). For the lower position, push down on the top of the spindle, and install the hair pin clip (B) below the top of the bracket (C).

SLIDING BRACKET GAUGE WHEELS

1. Remove the nylock wing nut (A, Figure 47) from capscrew (C). Slide out capscrew (C) from gauge wheel bracket (B). Change position of gauge wheel assembly to desired height.
2. Insert capscrew (C) through gauge wheel bracket (B) and gauge wheel assembly (D). Tighten nylock wing nut (A). Repeat steps 1 & 2 for all gauge wheels.

FIXED BRACKET GAUGE WHEELS

1. Remove the locknut (B, Figure 48), gauge wheel (C), washers (D), and shoulder bolt (E). Change position of gauge wheel to desired height.
2. Insert shoulder bolt (E) through washers (D) gauge wheel (C), and gauge wheel bracket (A). Secure with locknut (B). Repeat steps 1 & 2 for all gauge wheels.

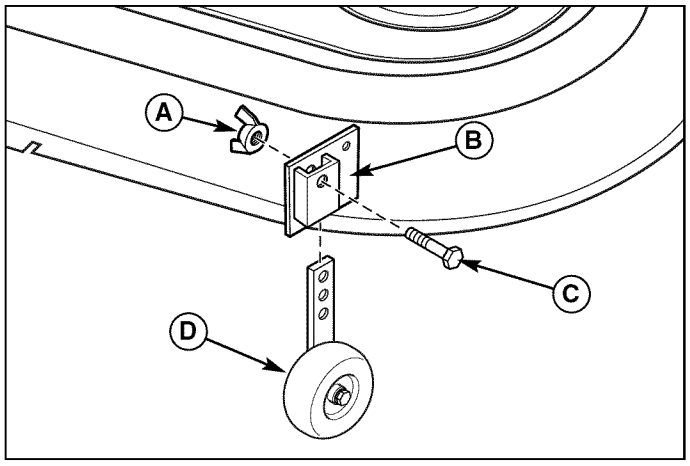


Figure 47. Sliding Bracket Gauge Wheel Adjustment
A. Nylock Wing Nut
B. Gauge Wheel Bracket
C. Capscrew
D. Gauge Wheel Assembly

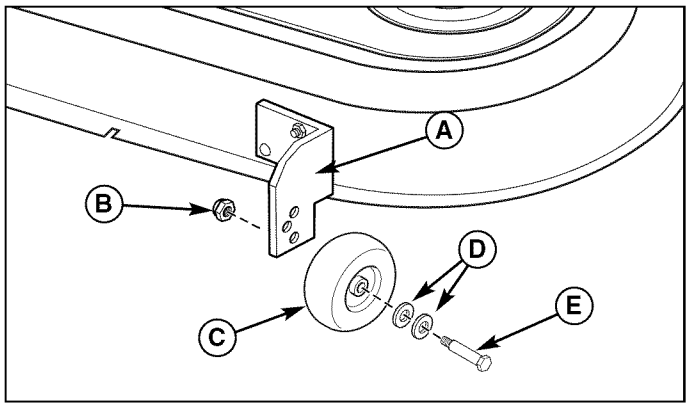


Figure 48. Fixed Bracket Gauge Wheel Adjustment
A. Gauge Wheel Bracket
B. Locknut
C. Gauge Wheel
D. Washers
E. Shoulder Bolt

Transport Height & Ground Following Adjustment (Select Models)

The transport height and ground following ability can be adjusted. Raising the trunnion (C, Figure 57) on the j-hook (A) will adjust the deck into the greatest ground following ability and the lowest transport position, when the deck is lowered. Lowering the trunnion on the j-hook will give the highest transport position and decrease the deck's ground following ability, when the deck is lowered.

1. Loosen jam nut (B, Figure 49).
2. Remove the hair pin (F) and washer (E) from trunnion (C).
3. Remove the trunnion (C), j-hook (A) and jam nut (B) from tractor lift arm (D).
4. Turn trunnion (C) up or down to adjust height.
5. Place trunnion (C), j-hook (A) and jam nut (B) in tractor lift arm (D). Install washer (E) and hair pin (F). Tighten jam nut (B).

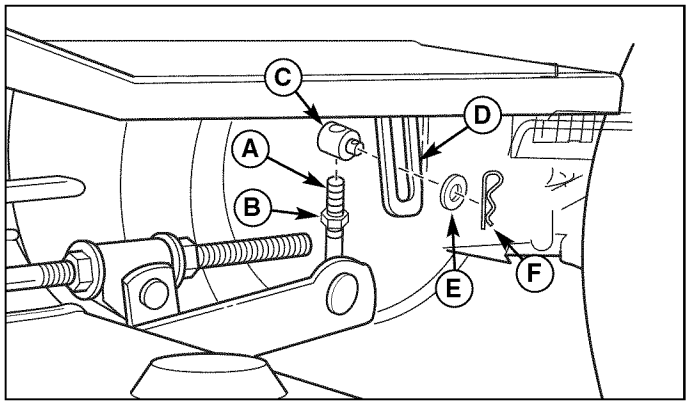


Figure 49. Cutting Height Adjustment
A. J-Hook
B. Jam Nut
C. Trunnion
D. Tractor Lift Arm
E. Washer
F. Hair Pin

Leveling The Mower

If the cut is uneven, the mower may need leveling. Unequal or improper tire pressure may also cause an uneven cut. Make sure tire pressure is correct as specified in Checking Tire Pressure.

SIDE-TO-SIDE LEVELING

1. With the mower installed, place the tractor on a smooth, level surface such as a concrete floor. Turn the front wheels straight forward.
2. Check for bent blades and replace if necessary.
3. Place the mower in mid-cut position. Arrange the outside mower blades so that they are pointing from side-to-side.
4. Measure the distance between the outside tips of each blade and the ground. If there is more than 1/8" (3mm) difference between the measurements on each side, proceed to step 5. If the difference is 1/8" (3mm) or less, proceed to step 6.

ECCENTRIC NUT MODELS

5. See Figure 50. Loosen the outside nut (A). Turn the eccentric nut (B) to raise or lower left-hand side of mower. When mower is level, hold the eccentric nut while tightening the outside nut.

J-HOOK MODELS

5. See Figure 51. Hold J-Hook (A) turn locknut (B). Turn the locknut (B) to raise or lower left-hand side of mower.

NOTE: 44", 50", & 54" Mowers. When using a turbo collection system, raise the discharge side of the mower approximately 1/4" (6mm) to compensate for turbo assembly weight. Check the level of the cut grass and adjust the 1/4" (6mm) measurement as necessary for a smooth, even cut.

FRONT-TO-BACK LEVELING

NOTE: 54" mowers have two adjustment rods that should be adjusted simultaneously.

6. Arrange the blades so they face front-to-back.
7. Measure the distance from the ground to the front tip of the center blade, and from the ground to rear tips of left-hand and right-hand blades.

   Front tip of the center blade should be 1/4" (6mm) higher than rear tips of left-hand and right-hand blades. If not, proceed with steps 8 - 9.
8. To raise front of mower deck, loosen front nut (B) and turn rear nut (A, Figure 52) against bracket. To lower front of mower deck, loosen rear nut (A) and the bracket will move backwards to lengthen rod.
9. Re-check the blade measurement then tighten the front nut (B) against the bracket to secure.

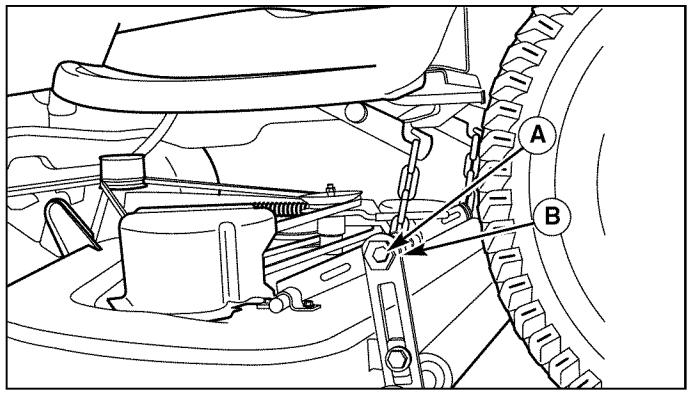


Figure 50. Leveling The Mower Side-to-Side Eccentric Nut Models
A. Outside Nut
B. Eccentric Nut

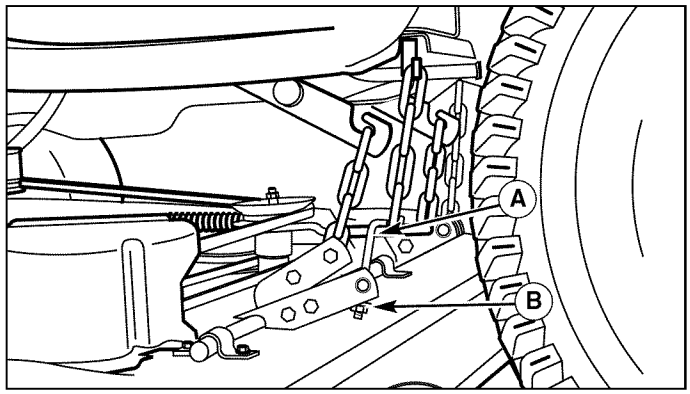


Figure 51. Leveling The Mower Side-to-Side, J-Hook Models
A. J-Hook
B. Locknut

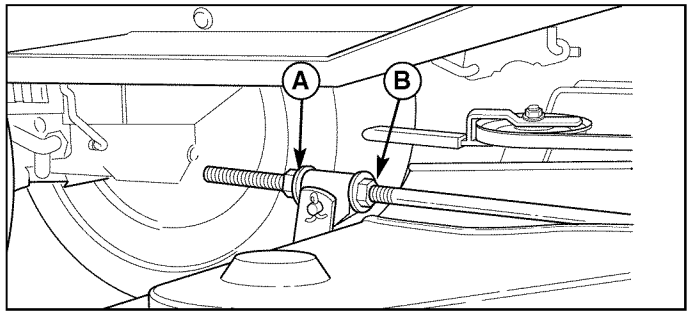


Figure 52. Front to Back Leveling
A. Rear Nut **B. Front Nut**

Mower Belt Replacement

To avoid damaging belts, DO NOT PRY BELTS OVER PULLEYS.

44" & 50" PTO Belt Replacement

1. Park the tractor on a smooth, level surface such as a concrete floor. Disengage the PTO, turn off the engine and lock the parking brake. Remove the key. Remove the mower or place in the lowest cutting position.
2. Move the idler arm (A, Figure 53) to relieve belt tension. Drop the belt from the PTO (electric clutch) pulley.

IMPORTANT: Note the position of all belt guides relative to the belt and pulleys before loosening.

3. Loosen the nut and lockwasher securing the idler pulley belt guide (C, Figure 53).
4. See Figure 54. Remove three capscrews securing left-hand arbor cover (D).
5. Remove the old belt and replace with a new one. Make sure the belt is seated in the pulley grooves.
6. See Figure 53. Position the idler pulley belt stop (C) in its original position so that there is a 1/8" (3mm) gap between the pulley and belt stop.
7. See Figure 54. Reinstall the left-hand arbor cover (D). Reinstall the mower deck if removed.
8. Run the mower under a no-load condition for about 5 minutes.

54" PTO Belt Replacement

1. Park the tractor on a smooth, level surface such as a concrete floor. Disengage the PTO, turn off the engine and lock the parking brake. Remove the key.
2. Move the idler arm (A, Figure 53) to relieve belt tension. Drop the belt from the PTO (electric clutch) pulley.
3. Remove the old belt and replace with a new one. Make sure the V-side of belt runs in the pulley grooves.
4. Install the drive belt on the PTO pulley. Move the idler arm and install the belt on the idler pulley.
5. Run the mower under no-load condition for about 5 minutes.

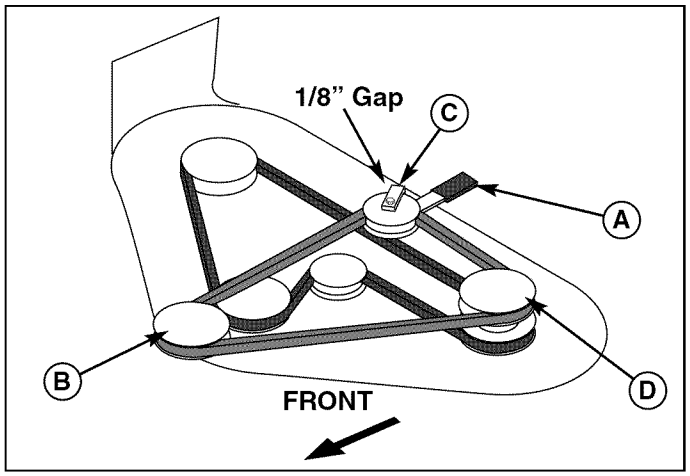


Figure 53. Mower Belt Routing
A. Idler Pulley Arm
B. PTO Clutch Pulley
C. Belt Guide (44" & 50")
D. Arbor Drive Pulley

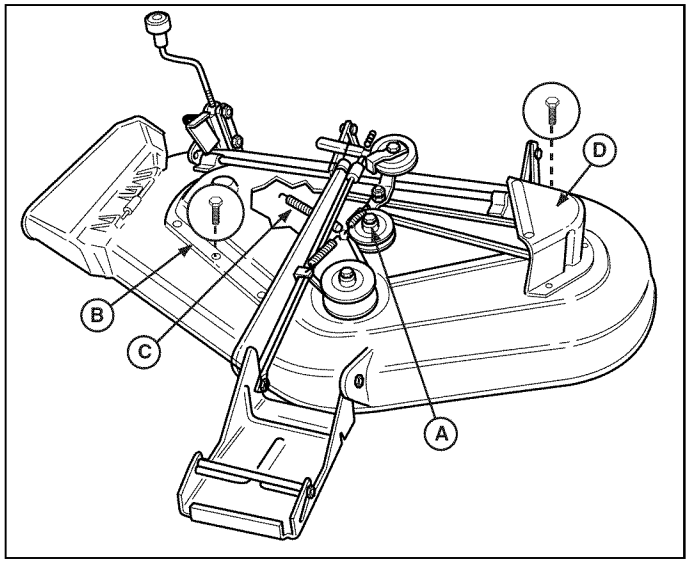


Figure 54. Mower Deck - 44" & 50" Mowers
A. Capscrew
B. Right-hand Arbor Cover
C. Spring
D. Left-hand Arbor Cover

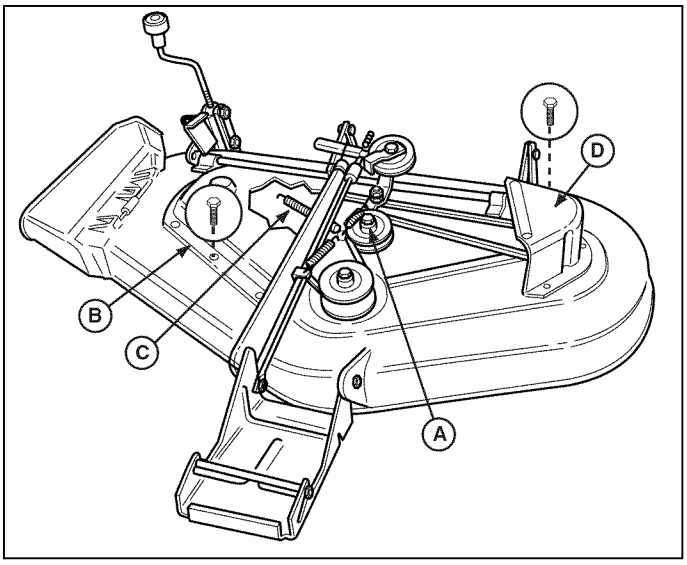


Figure 55. Mower Deck - 44" & 50" Mowers
A. Capscrew
B. Right-hand Arbor Cover
C. Spring
D. Left-hand Arbor Cover

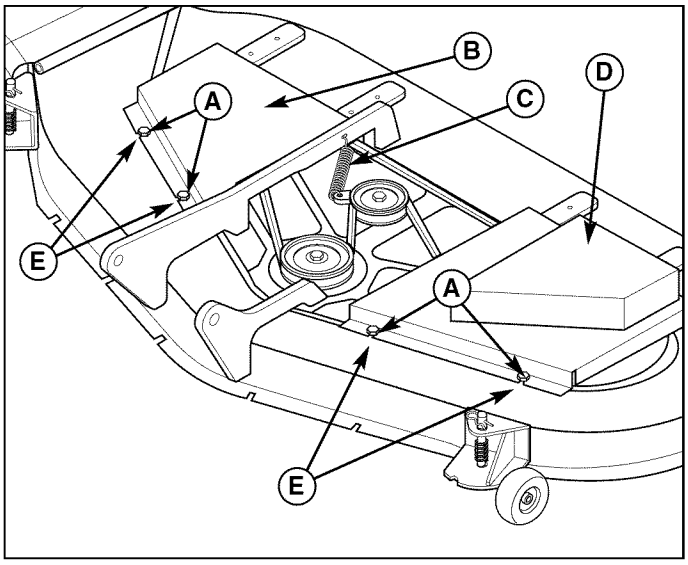


Figure 56. Mower Deck - 54" Mowers
A. Taptite Screws
B. Right-hand Arbor Cover
C. Spring
D. Left-hand Arbor Cover
E. Alignment Notches

Arbor Drive Belt Replacement - 44", 50", & 54" Mowers

NOTE: Be sure to use only genuine Simplicity replacement parts.

1. Park the tractor on a smooth, level surface such as a concrete floor. Disengage the PTO, turn off the engine and lock the parking brake. Remove the key.
2. Remove the mower from the tractor. See Mower Removal in the Operation section.

44" & 50" MODELS

3. Remove the capscrews securing the right-hand arbor cover (B, Figure 55). Remove three capscrews securing left-hand arbor cover (D).

54" MODELS

3. Remove the PTO belt. Remove the taptite screws (A, Figure 56) securing the belt covers and remove the belt covers (B, D).

ALL MODELS

4. Using a pair of locking pliers or a spring puller, remove the idler pulley spring (C, Figures 55-56) from slot in deck.
5. Loosen capscrew (A, Figure 55) securing the idler pulley to the bracket. The belt can now be slipped between the pulley and idler bracket hub.
6. Install a new belt as shown in Figure 57. Make sure that V-side of belt runs in arbor pulley (A) grooves and flat side of belt runs against idler pulley (B).
7. Tighten the capscrew (A, Figure 55).

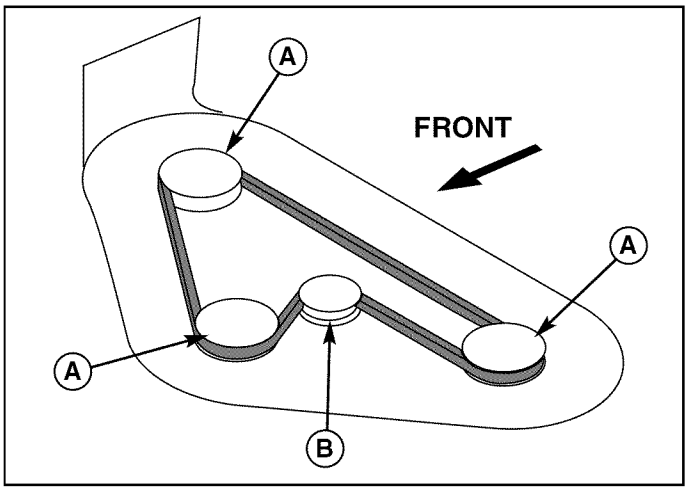
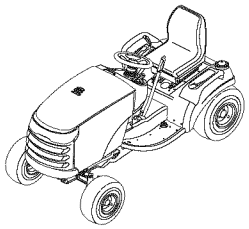


Figure 57. Mower Deck Drive Belt Routing All Models
A. Arbor Drive Pulley (V-sided)
B. Idler Pulley (Flat-sided)

8. Reinstall spring (C, Figures 55-56) into its slot in mower deck.
9. Reinstall the left and right arbor covers (B and D, Figures 55-56). **54" Models:** To provide proper belt cover clearance, make sure the alignment notches (E, Figure 56) are centered on the taptite screws (A).
10. Install the mower onto the tractor.



Specifications

NOTE: Specifications are correct at time of printing and are subject to change without notice.
** The power ratings for an individual engine model are initially developed by starting with SAE (Society of Automotive Engineers) code J1940 (Small Engine Power & Torque Rating Procedure) (Revision 2002–05). Given both the wide array of products on which our engines are placed, and the variety of environmental issues applicable to operating the equipment, it may be that the engine you have purchased will not develop the rated horsepower when used in a piece of power equipment (actual "on–site" power). This difference is due to a variety of factors including, but not limited to, the following: differences in altitude, temperature, barometric pressure, humidity, fuel, engine lubrication, maximum governed engine speed, individual engine to engine variability, design of the particular piece of power equipment, the manner in which the engine is operated, engine run–in to reduce friction and clean out of combustion chambers, adjustments to the valves and carburetor, and other factors. The power ratings may also be adjusted based on comparisons to other similar engines utilized in similar applications, and will therefore not necessarily match the values derived using the foregoing codes.*

ENGINE:

27 HP* Kohler

Make	Kohler Command
Model	CV740S
Horsepower	27 @ 3600 rpm
Displacement	44.0 Cu. in (725 cc)
Electrical System	12 Volt, 15 amp. Alternator, Battery: 500 CCA
Oil Capacity	2 qt. (1.9L)

25 HP* Kohler

Make	Kohler Command
Model	CV730S
Horsepower	25 @ 3600 rpm
Displacement	44.0 Cu. in (725 cc)
Electrical System	12 Volt, 15 amp. Alternator, Battery: 500 CCA
Oil Capacity	2 qt. (1.9L)

25 HP* Kohler

Make	Kohler Courage
Model	SV730S
Horsepower	25 @ 3600 rpm
Displacement	44.0 Cu. in (725 cc)
Electrical System	12 Volt, 15 amp. Alternator, Battery: 500 CCA
Oil Capacity	2 qt. (1.9L)

23 HP* Kohler

Make	Kohler
Model	CV23S
Horsepower	23 @ 3600 rpm
Displacement	41.1 Cu. in (674 cc)
Electrical System	12 Volt, 15 amp. Alternator, Battery: 500 CCA
Oil Capacity	2 qt. (1.9L)

22 HP* Briggs & Stratton

Make	Briggs & Stratton
Model	Vanguard
Horsepower	22 @ 3600 rpm
Displacement	38 Cu. in (622 cc)
Electrical System	12 Volt, 16 amp. Alternator, Battery: 340 CCA
Oil Capacity	48 Oz. (1.4 L)

21 HP* Briggs & Stratton

Make	Briggs & Stratton
Model	Vanguard
Horsepower	21 @ 3600 rpm
Displacement	38 Cu. in (622 cc)
Electrical System	12 Volt, 16 amp. Alternator, Battery: 340 CCA
Oil Capacity	48 Oz. (1.4 L)

20 HP* Briggs & Stratton

Make	Briggs & Stratton
Model	Vanguard
Horsepower	20 @ 3600 rpm
Displacement	34.8 Cu. in (570 cc)
Electrical System	12 Volt, 16 amp. Alternator, Battery: 340 CCA
Oil Capacity	48 Oz. (1.4 L)

CHASSIS:

Prestige / 1800 / 2800 / GT & Conquest / 1700 / 2700 / YT Series

Fuel Tank Cap.	Capacity: 4.0 Gallons (15 L)
Rear Wheels	Tire Size: 24 x 12 -12 Inflation Pressure: 6-8 psi (,41-,55 bar)
Rear Wheels	Tire Size: 23 x 10.50 -12 Inflation Pressure: 6-8 psi (,41-,55 bar)
Front Wheels	Tire Size: 16 x 6.50-8 Inflation Press.: 15 psi (1.0 bar)

TRANSMISSIONS:

K71

Type	Hydrostatic Tuff Torq K71
Hydraulic Fluid	10w 30 Premium Engine Oil
Capacity	4.8 qt (4,6 L)
Speeds	Forward: 0-7.2 MPH (0-11.6 km/h)
@ 3400 rpm	Reverse: 0-4.5 MPH (0-7.2 km/h)
Continuous Torque Output	410 ft. lbs. (554 N.m.)
Drawbar Rating	440 lbs. (200 Kg)
Maximum Weight on Axle	728 lbs. (330 Kg)

K66

Type	Hydrostatic Tuff Torq K66
Hydraulic Fluid	10w 30 Premium Engine Oil
Capacity	2.6 qt (2,5 L)
Speeds	Forward: 0-5.8 MPH (9.3 km/h)
@ 3400 rpm	Reverse: 0-3.5 MPH (5.6 km/h)
Continuous Torque Output	310 ft. lbs. (419 N.m.)
Drawbar Rating	440 lbs. (200 Kg)
Maximum Weight on Axle	697 lbs. (316 Kg)

DIMENSIONS:

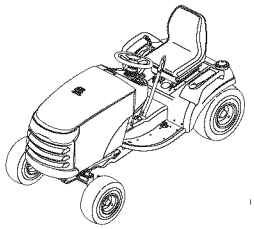
Prestige / 1800 / 2800 / 500 Series

Overall Length	75" (190,5 cm)
Overall Width	41" (104 cm)
Height	At Top of Seat: 50" (127 cm)
Weight	
Tractor	666 lbs. (302 kg)
44 & 50" Mower Deck	125 lbs. (57 kg)
54" Mower Deck	192 lbs. (87 kg)

Conquest / 1700 / 2700 / 400 Series

Overall Length	75" (190,5 cm)
Overall Width	39" (99 cm)
Height	At Top of Seat: 50" (127 cm)
Weight	
Tractor	586 lbs. (266 kg)
44" Mower Deck	112 lbs. (51 kg)
50" Mower Deck	125 lbs. (57 kg)

Parts & Accessories



Replacement Parts

Replacement parts are available from your authorized dealer. Always use genuine Simplicity Service Parts.

Maintenance Items

Many convenient and helpful service and maintenance items are available from you authorized dealer. Some of these items include:

Engine Oil
Touch-Up Paint
Grease Gun Kit
8 oz. Grease Tube
Tire Sealant
Degrimer/Degreaser
Gas Stabilizer

Optional Accessories

Snowthrower Cab
Snowthrower Attachments
42" Dozer/Snow Blade
Rear Wheel Weights
Tire Chains
Twin Bag Grass Catcher
Dump Cart
Hour Meter Kit
Gas Cans
Rear Weight Carrier
Front Weight Carrier
Triple Bag Collector
Turbo Collector
Tiller

Technical Manuals

Additional copies of this manual are available, as well as fully illustrated parts lists. These manuals show all of the product's components in exploded views (3D illustrations which show the relationship of parts and how they go together) as well as part numbers and quantities used. Important assembly notes and and torque values are also included.

For applicable manuals currently available for your model, contact our Customer Publications Department at 262-284-8519 (Simplicity) / 866-313-6682 (Snapper). Have the information listed in the box below available when phoning in your request. Technical manuals can be downloaded from

www.simplicitymfg.com

www.snapper.com

Model: _____

Mfg. No.: _____

Your Name: _____

Address: _____

City, State, Zip: _____

Visa/Mastercard No.: _____

Card Expiration Date: _____

Simplicity
MANUFACTURING, INC.
500 N Spring Street / PO Box 997
Port Washington, WI 53074-0997

www.SimplicityMfg.com

SNAPPER
PRODUCTS, INC.
535 Macon Street
McDonough, GA 30253

www.Snapper.com

MASSEY FERGUSON
LAWN & GARDEN EQUIPMENT
500 N Spring Street / PO Box 997
Port Washington, WI 53074-0997

www.MasseyLawn.com

AGCO
LAWN & GARDEN EQUIPMENT
500 N Spring Street / PO Box 997
Port Washington, WI 53074-0997

www.AGCOLawn.com

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